Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Grain Processing Corporation
Facility Location: 1600 Oregon St.
Muscatine, IA 52761
Air Quality Operating Permit Number: 03-TV-029
Expiration Date: September 8, 2008

EIQ Number: 92-2259
Facility File Number: 70-01-004

Responsible Official
Name: Mr. Doyle Tubandt
Title: Senior Vice President
Mailing Address: 1600 Oregon St.
Muscatine, IA 52761
Phone No. : 563/264-4700

Permit Contact Person for the Facility
Name: Mr. Bill D. Chrisman
Title: Director, Environmental Services
Mailing Address: 1600 Oregon St.
Muscatine, IA 52761
Phone No. : 563/264-4561

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Air Operating Permits Section Date

Table of Contents

Abbreviations

acfm ..... actual cubic feet per minute
CFR ..... Code of Federal Regulation
EIQ ..... emissions inventory questionnaire
^{o}F ..... degrees Fahrenheit
GPH……gallons per hour
gr./dscf..... grains per dry standard cubic foot
gr./100 cf ..... grains per one hundred cubic feet
IAC ..... Iowa Administrative Code
IDNR ..... Iowa Department of Natural Resources
lb./hr ..... pounds per hour
lb./MMBtu..... pounds per million British thermal units
Mgal/hr……thousand gallons per hour
m/s……..meters per second
MVAC ..... motor vehicle air conditioner
N/A.....not applicable
NSPS ..... new source performance standard
ppmv..... parts per million by volume
scfm ..... standard cubic feet per minute
TPH…….tons per hour
TPY ..... tons per year
USEPA ..... United States Environmental Protection Agency

Pollutants

PM ..... particulate matter
PM_{10} ..... particulate matter ten microns or less in diameter
SO_2 ..... sulfur dioxide
NO_x..... nitrogen oxides
VOC……volatile organic compound
CO ..... carbon monoxide
HAP..... hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Grain Processing Corporation
Permit Number: 03-TV-029

Facility Description: Wet Corn Processor

Equipment List

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
GEP Stack Boilers		
1.0	5201.0	Boiler No.1 (Coal or Natural Gas Fired)
	5202.0	Boiler No.2 (Coal or Natural Gas Fired)
	5203.0	Boiler No.3 (Coal or Natural Gas Fired)
	5204.0	Boiler No.4 (Coal or Natural Gas Fired)
	5206.0	Boiler No.6 (Coal or Natural Gas Fired)
	5207.0	Boiler No.7 (Coal or Natural Gas Fired)
GEP Boilers-Emergency Bypass Stacks		
2.0	5201.0	Boiler No.1 (Bypass Stack)
	5202.0	Boiler No.2 (Bypass Stack)
3.0	5203.0	Boiler No.3 (Bypass Stack)
4.0	5204.0	Boiler No.4 (Bypass Stack)
6.0	5206.0	Boiler No.6 (Bypass Stack)
107.0	5207.0	Boiler No.7 (Bypass Stack)
Power House Boilers 8 & 9		
103.0	5208.0	Power House Boiler No.8
104.0	5209.0	Power House Boiler No.9
Power House Boilers 10 & 11		
142.0	5210.0	Power House Boiler No.10
153.0	5211.0	Power House Boiler No.11
177.0	5212.0	Power House Boiler No.12
124.0	5213.0	Ash Silo
490.0	6003.0	Elevator Corn Unloading (A)
	6004.0	Elevator Corn Unloading (B)
Wet Germ Cyclones		
14.0	2801.0	No. 1 Wet Germ Cyclone
96.0	2803.0	No. 2 Wet Germ Cyclone
194.0	2894.0	No. 3 Wet Germ Cyclone

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Germ Dryers		
15.0	2802.0	No. 1 Germ Dryer
	2802.1	No.2 Germ Dryer
97.0	2804.0	No.3 Germ Dryer
126.0	2807.0	No.4 Germ Dryer
178.0	2872.0	No.5 Germ Dryer
P & S Dryers 1-4		
24.1 25.1 26.1	2404.0	No. 1 P & S Dryer
24.2 25.2 26.2	2405.0	No. 2 P & S Dryer
24.3 25.3 26.3	2406.0	No. 3 P & S Dryer
24.4 25.4 26.4	2407.0	No. 4 P & S Dryer
P & S Dryers 7-10		
59.1 59.2 59.3	2410.0	No. 7 P & S Dryer
101.1 101.2 101.3	2413.0	No. 8 P & S Dryer
91.1 91.2 91.3	2411.0	No. 9 P & S Dryer
92.1 92.2 92.3	2412.0	No. 10 P & S Dryer
121.1 121.2 121.3	2414.0	No. 11 P & S Dryer

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Dryer House 1-Mill Cyclones & Product Aerodynes		
28.1	1201.0	No. 1 Mill Product Aerodyne
28.2	1202.0	No. 2 Mill Product Aerodyne
28.3	1203.0	No. 3 Mill Product Aerodyne
Dryer House 1-Rotary Dryers		
32.1	1207.0	No. 1 Rotary Dryer
32.2	1208.0	No. 2 Rotary Dryer
32.3	1209.0	No. 3 Rotary Dryer
32.4	1210.0	No. 4 Rotary Dryer
32.5	1211.0	No. 5 Rotary Dryer
32.6	1212.0	No. 6 Rotary Dryer
38.0	1213.0	Dryer House 2-Gluten Meal Day Bin Transfer
40.0	1214.0	Dryer House 2-Rotary Dryer-Distiller's Dark Grains
	1214.1	Dryer House 2-Rotary Dryer-Natural Gas Combustion
41.0	1215.0	Dryer House 2-Dryer End Pickup
42.0	1216.0	Dryer House 2- No. 1 Mill Aerodyne
Gluten Flash Dryers 1-3		
43.1	1217.0	No. 1 Gluten Flash Dryer-Gluten Meal
	1217.1	No. 1 Gluten Flash Dryer-Natural Gas Combustion
	1217.2	No. 2 Gluten Flash Dryer-Gluten Meal
	1217.3	No. 2 Gluten Flash Dryer-Natural Gas Combustion
43.2	1217.0	No. 1 Gluten Flash Dryer-Gluten Meal –Bypass Stack
	1217.1	No. 1 Gluten Flash Dryer-Natural Gas Combustion –Bypass Stack
43.3	1217.2	No. 2 Gluten Flash Dryer-Gluten Meal –Bypass Stack
	1217.3	No. 2 Gluten Flash Dryer-Natural Gas Combustion –Bypass Stack
46.0	1221.0	No. 3 Gluten & Hulls Flash Dryer-Gluten & Corn Hulls
	1221.1	No. 3 Gluten & Hulls Flash Dryer-Natural Gas Combustion
46.1	1221.0	No. 3 Gluten & Hulls Flash Dryer-Gluten & Corn Hulls-Bypass Stack
	1221.1	No. 3 Gluten & Hulls Flash Dryer-Natural Gas Combustion-Bypass Stack

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
173.0	1244.0	No. 4 Gluten Flash Dryer-Gluten
	1244.1	No. 4 Gluten Flash Dryer-Natural Gas Combustion
174.0	1245.0	No. 4 Gluten Pre-Mill Cooling System
	1246.0	No. 4 Gluten Pre-Mill Cooling System-Mill
531.0	1260.1	GP1 Transport System
60.0	2415.0	Quonset (Track 3 & 4 N. Starch) Bulk Loadout
Maltrin® Spray Dryers 1-4		
66.0	3101.0	No. 1 Maltrin® Spray Dryer-Maltodextrin
	3101.1	No. 1 Maltrin® Spray Dryer-Natural Gas Combustion
132.1	3111.0	No. 3 Maltrin® Spray Dryer-Maltodextrin
132.2		
132.1	3111.1	No. 3 Maltrin® Spray Dryer-Natural Gas Combustion
132.2		
135.0	3110.0	No. 4 Maltrin® Spray Dryer-Maltodextrin
136.0		
135.0	3110.1	No. 4 Maltrin® Spray Dryer-Natural Gas Combustion
136.0		
168.0	3107.0	No. 5 Maltrin® Spray Dryer-Maltodextrin
169.0		
168.0	3107.1	No. 5 Maltrin® Spray Dryer-Natural Gas Combustion
169.0		
186.0	3116.0	No. 6 Maltrin® Spray Dryer-Maltodextrin
187.0		
186.0	3116.1	No. 6 Maltrin® Spray Dryer-Natural Gas Combustion
187.0		
Maltodextrin Conveying		
67.0	3102.0	Pneumatic Conveying of Maltodextrin
68.0	3103.0	Pneumatic Conveying of Maltodextrin
Dryer House 3 Primary Dryer		
79.0	1224.0	Dryer House 3 Primary Dryer-Corn Hulls
80.0		
81.0		
82.0		
79.0	1224.1	Dryer House 3 Primary Dryer-Natural Gas Combustion
80.0		
81.0		
82.0		

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
85.0	1225.0	Dryer House 2-Mill Aerodyne
95.0	2416.0	Track 3 South Starch Bulk Loading
98.0	2805.0	Pneumatic Conveying of Dry Germ
West Cyclone Expellers		
99.0	2876.0	No. 1 Expeller
	2877.0	No. 2 Expeller
	2878.0	No. 3 Expeller
	2879.0	No. 4 Expeller
	2880.0	No. 5 Expeller
	2881.0	No. 6 Expeller
	2888.0	No. 13 Expeller
	2890.0	No. 15 Expeller
East Cyclone Expellers		
148.0	2882.0	No. 7 Expeller
	2883.0	No. 8 Expeller
	2884.0	No. 9 Expeller
	2885.0	No. 10 Expeller
	2886.0	No. 11 Expeller
	2887.0	No. 12 Expeller
	2889.0	No. 14 Expeller
	2892.0	No. 16 Expeller
	2893.0	No. 17 Expeller
Dryer House 4 Rotary Steam Tube Dryers		
108.1	1228.0	Dryer House 4-No. 1 Rotary Steam Tube Dryer
108.2	1229.0	Dryer House 4-No. 2 Rotary Steam Tube Dryer
108.3	1230.0	Dryer House 4-No. 3 Rotary Steam Tube Dryer
125.0	1235.0	Dryer House 4-No. 4 Rotary Steam Tube Dryer
127.0	1236.0	Dryer House 4-No. 5 Rotary Steam Tube Dryer
137.0	1238.0	Dryer House 4-No. 6 Rotary Steam Tube Dryer
164.0	1241.0	Dryer House 4-No. 7 Rotary Steam Tube Dryer
Dryer House 4 Mill and Product Aerodynes 1-3		
110.0	1231.0	Dryer House 4-No 1 Mill Feed Aerodyne
113.0		Dryer House 4-No. 1 Mill Product Baghouse
111.0	1232.0	Dryer House 4-No. 2 Mill Feed Aerodyne
114.0		Dryer House 4-No. 2 Mill Product Aerodyne
112.0	1233.0	Dryer House 4-No. 3 Mill Feed Aerodyne
115.0		Dryer House 4-No. 3 Mill Product Aerodyne

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Dryer House 4 Mill and Product Aerodynes 4-6		
128.0	1237.0	Dryer House 4-No. 4 Mill Feed Aerodyne
129.0		Dryer House 4-No. 4 Mill Product Baghouse
138.0	1239.0	Dryer House 4-No. 5 Mill Feed Aerodyne
140.0		Dryer House 4-No. 5 Mill Product Aerodyne
139.0	1240.0	Dryer House 4-No. 6 Mill Feed Aerodyne
141.0		Dryer House 4-No. 6 Mill Product Aerodyne
119.0	1234.0	Dryer House Warehouse No. 1 Product Cooler
122.0	2435.0	Pearl Starch Storage Bin
130.0	2434.0	Industrial Starch Bagger
133.0	3501.0	Co-Polymer Disk Dryer
134.0	3502.0	Pneumatic Conveying of Polymerized Starch (CoPo Product Transfer)
Starch Flash Dryers		
143.0	2431.0	Starch Flash Dryer No. 1
158.0	2424.0	Starch Flash Dryer No. 2
144.0	3502.0	Cornstarch Packaging (Food Grade Packer/Supersacker)
145.0	2418.0	Cornstarch Bulk Loading (Food Grade)
Wet Mill Area Corn Cleaning		
147.0	2808.0	Wet Mill: No. 1-Corn Cleaner
	2808.1	Wet Mill: No. 2-Corn Cleaner
	2808.2	Wet Mill: No. 3-Corn Cleaner
	2808.3	Wet Mill: No. 4-Corn Cleaner
Starch Silos Nos. 1-4		
149.0	2419.0	Starch Silo No. 1 (N)
150.0	2420.0	Starch Silo No. 2 (E)
151.0	2421.0	Starch Silo No. 3 (S)
152.0	2422.0	Starch Silo No. 4 (W)
Starch Silos Nos. 5-10		
159.0	2425.0	Starch Silo No. 5 (N)
160.0	2426.0	Starch Silo No. 6 (E)
161.0	2427.0	Starch Silo No. 7 (S)
162.0	2428.0	Starch Silo No. 8 (W)
171.0	2429.0	Starch Silo No. 9 (NE)
172.0	2430.0	Starch Silo No. 10 (NW)
Maltrin® Agglomerators		
154.0	3105.0	Maltrin® Agglomerator No. 1
156.0	3106.0	Maltrin® Agglomerator No. 2

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
155.0	2423.0	Starch Sacker
157.0	3107A	Maltodextrin Bagger
163.0	2432.0	Starch Track 3A Bulk Loading
167.0	1242.0	Dryer House Warehouse-No. 2 Feed Cooler
175.0	3108.0	Maltrin® Product Silo Receiver
176.0	3109.0	Maltrin® Nuisance Dust Collector
Feed Truck Loadout		
179.0	1258.0	No. 1 Feed Truck Loadout
180.0	1259.0	No. 2 Feed Truck Loadout
181.1	6005.0	South Elevator Rail Receiving Pit and Transfer System
181.2	6006.0	South Elevator Truck Receiving Pit and Transfer System
Maltrin® Filter Aid and Carbon Bulk Storage Bins		
182.0	3115.0	Maltrin® Filter Aid Bulk Storage Bin No. 1
183.0	3112.0	Maltrin® Filter Aid Bulk Storage Bin No. 2
184.0	3113.0	Maltrin® Filter Aid Bulk Storage Bin No. 3
185.0	3114.0	Maltrin® Bulk Carbon Storage Bin No. 1
G-Series Starch Processing		
188.0	2501.0	Starch Drying
	2502.0	Starch Grinding and Screening
	2503.0	Starch Pneumatic Transfer
	2504.0	Starch Pneumatic Transfer
	2505.0	Starch Pneumatic Transfer
	2506.0	Starch Pneumatic Transfer
189.0	5215.0	Lime Silo System
190A	1256.0	Gluten Load Out Transfer
190B	1257.0	Gluten Truck Load Out Bin
191.0	5220.0	Bulk Salt Silo
Steep Tanks		
200.0-261.0	2810.0-2871.0	Steep Tank Nos. 1 through 62
267.0	2891.0	Mechanical Recompression Evaporator No. 2
Gluten Filters		
268.0-272.0	1250.0-1254.0	Gluten Filter Hood Vent Fans Nos. 1-5
273.0	2433.0	Starch-Gluten Separator Area Wall Fan
300.0	5214.0	Coal Pile
302.0	1002.0	Methanol Denaturant Tank
309.0	1065.0	Ethanol Distillation-Fugitive Acetaldehyde Emissions

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
Alcohol Area Storage Tanks		
400.0-405.0	1005.0-1010.0	Anhydrous Alcohol Tanks Nos.1 through 6
406.0	1011.0	Anhydrous Alcohol Dump Tank
407.0	1013.0	Anhydrous Alcohol Reject Tank
409.0-411.0	1014.0-1016.0	"A", "B" and "C" Scale 190 Proof Tanks
412.0	1017.0	190 Proof Brucine Tank
413.0	1018.0	200 Proof Brucine Tank
414.0	1019.0	Power House Heads Tank
415.0-424.0	1020.0-1029.0	"A" Tank Farm-Tanks 1A through 10A
425.0-434.0	1030.0-1039.0	"A" Tank Farm-Tanks 1B through 10B
437.0	1042.0	"A" Tank Farm-Denatured Tank No. 12
438.0-440.0	1043.0-1045.0	"A" Tank Farm-Tanks 1A through 3A High Wine
442.0	1047.0	"A" Tank Farm-No. 2 Anhydrous Alcohol Feed Tank
445.0-450.0	1050.0-1055.0	"B" Tank Farm-Tanks 3H through 8H
451.0-455.0	1056.0-1060.0	"C" Tank Farm-Tanks 1C through 5C
456.0-457.0	1061.0-1062.0	"D" Tank Farm-Denaturant Tanks 1 & 2
458.0-459.0	1063.0-1064.0	"D" Tank Farm-Denaturant Tanks 13 & 14
476.0-477.0	1069.0-1070.0	Ethyl Acetate Denaturant Tank 1 & 2
478.0	1071.0	Unleaded Gasoline Denaturant Tank
539.0	1097.0	Unleaded Gasoline Denaturant Tank
532.0	1048.0 & 1049.0	Fuel Ethanol Storage Tanks 1H & 2H
435.0	1040.0	"A" Tank Farm Mole Sieve No. 2 Low Proof Feed Tank No. 4
436.0	1041.0	"A" Tank Farm Mole Sieve No. 2 Low Proof Feed Tank No. 11
471.0	2437.0	Modified Starch Storage Silo
472.0	1068.0	Alcohol Prefermenters
475.0	1066.0	Demethylization Feed Tank
Beer Well Tanks		
480.0-482.0	1072.0-1074.0	Beer Well Tanks Nos. 1 through 3
Alcohol Loadout		
483.0	1075.0	Alcohol Tank Truck Load Out
520.0-526.0	1094.1-1094.7	Alcohol Track 4A Rail Loadout Spouts Nos. 1-7
533.0-535.0	1094.8-1094.10	Alcohol Track 4B Loadout Spouts Nos. 8-10
527.0	1095.1	Alcohol Beverage Truck Loadout Spout (East)
528.0	1095.2	Alcohol Anhydrous 200 Truck Loadout Spout
529.0	1095.3	Alcohol 190 Proof (Heads) Truck Loadout Spout

Emission Point Number	Associated Emission Unit Number(s)	Associated Emission Unit Description
484.0	1076.0	Demethylization System Vent Condenser No. 1
485.0	1077.0	Demethylization Surge Tank No. 1
486.0	1078.0	Anhydrous Product Vent Condenser No. 2
487.0	1079.0	Anhydrous Vacuum Receiver Tank No. 2
488.0	1067.0	Anhydrous Alcohol Tank No. 7
489.0	1080.0	Anhydrous Reject Tank No. 2
Distillation Column Vents		
501.0-504.0	1082.0-1085.0	Nos. 1-4 Beer Column Vents
505.0-508.0	1082.0-1085.0	Nos. 1-4 Beer Column Degasifier Vents
509.0	1083.0	No. 2 Beer Column Reflux Vent
510.0	1086.0	No. 1 Alcohol Column Reflux Tank Vent
511.0	1086.0	No. 1 Alcohol Column Reflux Vent
512.0-515.0	1086.0-1089.0	Nos. 1-4 Alcohol Column Vents
516.0-518.0	1090.0-1092.0	Nos. 2-4 Extractive Distillation Column Vents
519.0	1093.0	Stripper Column Vent

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
1003.0	Ammonia Denaturant Tank (7,109 Gal.)
3504.0	Fugitive Acrylonitrile Emissions
4901.0	Diesel Firewater Pump (302 BHP)
5001.0	Maintenance Parts Washer
5002.0	Maintenance Welding
1072.0	MIBK Tank (325 Gal.)

II. Plant-Wide Conditions

Facility Name: Grain Processing Corporation
Permit Number: 03-TV-029

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: Five (5) years
Commencing on: September 9, 2003
Ending on: September 8, 2008

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Emission Limits
Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)[1]:
No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.
For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

---

[1] This is the current language in the Iowa Administrative Code (IAC). This version of the rule is awaiting EPA approval to become part of Iowa's State Implementation Plan (SIP). When EPA approves this rule, it will replace the older version and will be considered federally enforceable.

Particulate Matter (federally enforceable)[2]:
The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.
Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

Compliance Plan
The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Except as noted below or in Section III of this permit, Grain Processing Corporation is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Grain Processing Corporation shall comply with such requirements in a timely manner.
Authority for Requirement: 567 IAC 22.108(15)

[2] This is the current language in the Iowa SIP, and is enforceable by EPA.

Section 112(j) of the Clean Air Act (MACT Hammer)

On 9/4/02, Grain Processing Corporation, Inc. – Muscatine, IA submitted Part 1 MACT applications to IDNR, indicating that the facility may be subject to the MACT standards for Industrial/Commercial/Institutional Boilers & Process Heaters, 40 CFR 63 Subpart DDDDD when it is promulgated. Grain Processing Corporation. – Muscatine, IA must submit Part 2 MACT applications to IDNR by the deadline specified in 40 CFR 63.52(e), if 40 CFR 63 Subpart DDDDD has not been promulgated by that date.

Authority for Requirement: 40 CFR 63.52; 567 IAC 23.1(4)"b"(2)

40 CFR 60 Subpart VV Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry

The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d):

1. A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol.

Authority for Requirement: 40 CFR 60.486(i)(2)

III. Emission Point-Specific Conditions

Facility Name: Grain Processing Corporation
Permit Number: **03-TV-029**

Emission Point ID Number: 1.0

Associated Equipment

Associated Emission Unit ID Number: See Table: Power House GEP Stack Boilers
Emissions Control Equipment ID Numbers: See Table: Power House GEP Stack Boilers
Emissions Control Equipment Description: See Table: Power House GEP Stack Boilers
Continuous Emissions Monitors ID Numbers: 5201-M-4, 5201-M-2, 5201-M-3

Applicable Requirements

Table: Power House GEP Stack Boilers

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity	
					MMBtu/hr	lb. steam/hr
5201.0	Boiler No. 1	5201-1	Multiclone	Coal or Natural Gas	120	92,500
5202.0	Boiler No. 2	5202-1	Multiclone	Coal or Natural Gas	120	92,500
5203.0	Boiler No. 3	5203-1	Multiclone	Coal or Natural Gas	105	80,000
5204.0	Boiler No. 4	5204-1	Multiclone	Coal or Natural Gas	105	80,000
5206.0	Boiler No. 6	5206-1 & 2	Multiclones	Coal or Natural Gas	230	170,000
5207.0	Boiler No. 7	5207-1	Multiclone	Coal or Natural Gas	230	170,000
		5207-2	ESP			

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permit 95-A-374-S2
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 202.3 lb./hr[(1)] and 0.238 lb./MMBtu
Authority for Requirement: Iowa DNR Construction Permit 95-A-374-S2
567 IAC 23.3(2)"b"

[(1)] Standard is expressed as the average of three runs.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 3,915 lb/hr[(2)] and 6 lb./MMBtu
Authority for Requirement: Iowa DNR Construction Permit 95-A-374-S2
567 IAC 23.3(3)"a"(1)
[(2)] Averaged over a 24-hour calendar day.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

These boilers shall not be operated while ducted to the "short stacks" (bypass stacks).

Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. GPC shall maintain an on-site record of CEMS related data. The record shall contain all hourly sulfur dioxide and flow rate measurements, any missing data substitution, subsequent aggregate and averaging calculations, results of quality assurance and averaging calculations, results of quality assurance activities, and all performance test audit results. Test records shall be made readily available for inspection by the Iowa Department of Natural Resources (IDNR), the Environmental Protection Agency (EPA), or any authorized agent in these agencies.

2. GPC shall provide a written report on all exceedences of the aggregate hourly emissions average for boilers 1, 2, 3, 4, 6, and 7 no later than thirty (30) days following the end of each calendar quarter on forms provided by the IDNR. In addition, GPC shall report the aggregate annual emissions for boilers 1, 2, 3, 4, 6, and 7 in each quarterly report, summarizing the year-end totals in the fourth quarter report.

Authority for Requirement: Iowa DNR Construction Permit 5-A-374-S2

Emission Point Characteristics
This emission point is connected to the following emission units.

Emission Unit Description	**Maximum Capacity**
Power House – No. 1 Boiler (EU5201.0)	~ 120 MMBTU/hr (92,500 lb steam/hr)
Power House – No. 2 Boiler (EU5202.0)	~ 120 MMBTU/hr (92,500 lb steam/hr)
Power House – No. 3 Boiler (EU5203.0)	~ 105 MMBTU/hr (80,000 lb steam/hr)
Power House – No. 4 Boiler (EU5204.0)	~ 105 MMBTU/hr (80,000 lb steam/hr)
Power House – No. 6 Boiler (EU5206.0)	~ 230 MMBTU/hr (170,000 lb steam/hr)
Power House – No. 7 Boiler (EU5207.0)	~ 230 MMBTU/hr (170,000 lb steam/hr)

The emission point shall conform to the specifications listed below.

Stack Height (feet): 219
Stack Diameter (inches): 180
Stack Exhaust Flow Rate (scfm): 270,000 (Total GEP stack)
Stack Temperature (^{o}F): 370
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 95-A-374-S2

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed between (dates) –March 8, 2006 and March 8, 2007
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Continuous Emissions Monitoring:

Pollutant – Opacity Monitor -5201-M-4
Operational Specifications – 40 CFR 60 Appendix B, Performance Specification 1.
Date of Initial System Calibration and Quality Assurance – November 1, 2002
Ongoing System Calibration/Quality Assurance – 40 CFR 60, Appendix F
Reporting & Record keeping – 40 CFR 60.7(c) and (d)
Authority for Requirement - Iowa DNR Construction Permit 93-A-110

Pollutant – Sulfur Dioxide (SO_2) – Monitor 5201-M-2
Operational Specifications – 40 CFR 60, Appendix B, Performance Specification 6.
Date of Initial System Calibration and Quality Assurance – Feb. 21, 1996
Ongoing System Calibration/Quality Assurance - 40 CFR 60, Appendix F
Reporting & Record keeping - Iowa DNR Construction Permit 95-A-374-S2

In addition to the provisions of 40 CFR 60, Appendix B, the performance specifications applicable to the CEMS required by this permit shall include a data capture requirement

of 90% for the combined sulfur dioxide/flow monitoring system. All periods of data shall be represented. Missing data shall be provided by averaging the hour before and the hour after for any period of up to and including 8 hours. If the missing data period exceeds 8 hours, then the highest 24-hour average from the previous 90 valid operating days shall be used for the average for that 24-hour period.

GPC shall correct all data to remove any negative bias in excess of 3% from the combined SO_2/flow CEMS data using the bias adjustment factor (BAF). Negative bias is detected only when the absolute value of d [abs(dbar)] is greater than the absolute value of the confidence coefficient (cc), where cc is determined using equation 2.4 of Performance Specification 2. If negative bias is detected and the term abs(dbar) dived by CEM $\geq$ 0.03 (e.g. 3 percent negative bias or greater), then hourly (and subsequent daily and annual) data shall be corrected by the following adjustment factor:

$$BAF = 1 + \frac{|\bar{d}|}{CEM}$$

Where,

d = the arithmetic mean of the difference obtained during the failed bias test:

$$\bar{d} = \frac{1}{n} \times \sum d_I$$

CEM = Means of the data values provided by the monitor during the failed bias test.

The hourly averages shall be calculated using the sum of all valid values during each one-hour period using the following equation:

$$E_{SO2} = (K)(C_{SO2})(Q)(BAF)$$

Where,

E_{SO2} = hourly SO_2 emissions (lb/hr)
C_{SO2} = hourly average SO_2 concentration (wet ppm)
Q = hourly average volumetric flow rate (wet scfh)
K = 1.66×10^{-7} lbs/scf-ppm
BAF = Bias Adjustment Factor as described in Condition 13A.
BAF = 1.0 if system has any positive bias or negative bias less than 3.0%.

The following equations shall be used in the averaging calculations:

Daily Emissions Average = sum (hourly SO_2 rate) for calendar day/24

Daily Emissions	=	sum (hourly SO_2 rate) for calendar day including data from the missing data routine, if total missing data periods fo the boiler operating day is less than eight (8) hours
Daily Emissions	=	highest daily emissions over last ninety (90) boiler operating days if total missing data periods for the boiler operating day is greater than eight (8) hours
Annual Emissions	=	sum (Daily Emissions) for calendar year

Where,

Hourly SO_2 rate includes all quality assured CEM data, any substituted hourly data determined by the missing data routine, and any other quality assured emissions data collected using approved reference methods.

The 24-hour averages shall be the sum of all valid daily hours of operating during each 24-hour period. One hour means any sixty 60) minute period beginning on the hour and each 24-hour period shall be defined as the time between 12:01 am and 12:00 midnight.

Authority for Requirement - Iowa DNR Construction Permit 95-A-374-S2

Other Parameters

Pollutant – Other-Flow – Monitor 5201-M-3
Operational Specifications – 40 CFR 75, 40 CFR 60 Subpart A and 40 CFR 60 Subpart D
Date of Initial System Calibration and Quality Assurance – Feb. 4, 1996
Ongoing System Calibration/Quality Assurance - 40 CFR 60, Appendix F
Reporting & Record keeping - 40 CFR 75, 40 CFR 60 Subpart A
and 40 CFR 60 Subpart D
Authority for Requirement - Iowa DNR Construction Permit 95-A-374-S2

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Bahco" Multi-cyclone Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	5201.0, 5202.0, 5203.0, 5204.0, and 5206.0-Boilers No. 1-4 and No. 6
Emission Point:	1.0 GEP Stack
Control Equipment:	Bahco brand Multi-Cyclones

Introduction

Grain Processing Corporation has six bituminous boilers that utilize multi-cyclone control equipment for particulate emission reduction. Bahco brand multi-cyclones are used on boilers No. 1, 2, 3, 4, and 6, which all emit through a common stack. Boilers No. 1-4 each have one Bahco system and boiler No. 6 has two Bahco systems followed by a Joy Western multi-cyclone system.

Each of the coal fired boilers have non-compliance, information only, continuous opacity monitors, and the combined emissions of all boilers is continuously monitored for opacity by a transmissometer (COM) for the combined GEP stack.

MONITORING METHODS AND CORRECTIVE ACTION

General

Periodic Monitoring is not required during a daily down period when a boiler system is down for more than one day.

Monitoring

Continuously

- Differential pressures across the Bahco's are monitored continuously via a ProVox Distributed Control System. The Δp readouts are displayed on the control room computer consoles. Differential pressures are controlled to typically a 4.0" H_2O setpoint. Acceptable operating range is 3" to 5" H_2O.
- Non-compliance opacity measurements are also made continuously and read out on the Pro Vox consoles. Preventative maintenance is performed on these opacity analyzers each calendar quarter.

- Total combined boilers' GEP stack opacity is monitored continuously. This information is captured and stored via a data acquisition system. Quarterly summaries of average hourly opacity readings are generated on hard-copy and submitted to the DNR at the end of each calendar quarter.

Maintenance/Preventative Maintenance

Shift/Daily
- Each shift, the process operator checks tube reamers to ensure arms and reamers are moving freely.
- Each shift, the process operator checks airlocks and flappers for rotation and stroke. The operator feels the piping below the airlocks to determine if the ash is flowing freely (hot pipe) or blocked (cool pipe).
- Daily, the operator will "exercise" the spinner cap (inlet vane position) to ensure free movement.

Annually
- The entire boiler and Bahco System is taken down.
- Bachos are opened and internal surfaces inspected for wear and fouling.
- The entire interior of housing, tubes, and "D" tubes are water blasted.
- Tubes, the tubesheet, the housing, etc. are light checked for holes.
- Inlet vanes are removed and water blasted.
- Linkages on inlet vanes are checked and replaced as necessary.
- Tube reamers and cages are checked and repaired as necessary.
- Discharge hoppers are checked for wear, holes, and buildup. Discharge hoppers are water blasted.
- Air locks and / or double flapper valves are checked and lubricated.
- The secondary cyclone is water blasted and checked for wear. The discharge airlock is checked and lubricated.
- The secondary cyclone fan is checked and the rotating assembly replaced as necessary.

Record Keeping

Daily
The process operator will perform the qualitative parametric monitoring items as listed above. Any operating deviations and corrective action taken will be logged in the shift log. Pressure drop information will be available from the PI data historian. Examples of operating deviations that would be included in the shift log include (but are not limited to) failed airlocks, fan failures, reamers not working, or positioners not stroking 0-100%.

Annually
Work orders for annual inspections will be generated electronically and automatically by the Marcam Maintenance Management System. The work order will include the OMP checklist items. Work order checklist completion as well as general repair comments will be entered by the area maintenance planner into Marcam after completion of the work to document

completeness and corrective actions necessary. The work order data is stored electronically and available for up to five years.

"Western" Multi-Cyclone Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	5206.0 and 5207.0 - Boilers No. 6 and 7
Emission Point:	1.0 GEP Stack
Control Equipment:	Western brand Multi-Cyclones

Introduction

Grain Processing Corporation has six bituminous boilers that utilize multi-cyclone control equipment for particulate emission reduction. Western brand multi-cyclones are used on boiler No. 6, which has two Bahco systems followed by a Joy Western multi-cyclone system, and boiler No. 7, which has a Western multi-cyclone system followed by a dry electrostatic precipitator.

Each of the coal fired boilers have non-compliance, information only, continuous opacity monitors, and the combined emissions of all boilers is continuously monitored for opacity by a transmissometer.

MONITORING METHODS AND CORRECTIVE ACTION

General

Periodic Monitoring is not required during a daily down period when a boiler system is down for more than one day.

Monitoring

Continuously

- Differential pressures across the Western's scalper or secondary cyclone are monitored continuously via a ProVox Distributed Control System. The Δp readouts are displayed on the control room computer consoles. Normal operating range is 3" to 5" H_2O.
- Non-compliance opacity measurements are also made continuously for boilers No. 6 and 7 and read out on the Pro Vox consoles. Preventative maintenance is performed on these opacity analyzers each calendar quarter.

- Total combined boilers' GEP stack opacity is continuously monitored and the data stored via a data acquisition system. Quarterly summaries of average hourly opacity readings are generated on hard-copy and submitted to the DNR at the end of each calendar quarter.

Maintenance/Preventative Maintenance

Shift/Daily
- Each shift, the process operator checks airlocks and flappers for rotation and stroke. The operator feels the piping below the airlocks to determine if the ash is flowing freely (hot pipe) or blocked (cool pipe).

Annually
- The entire boiler and Western System is taken down.
- Western collectors are opened and internal surfaces inspected for wear and fouling.
- All interior surfaces are inspected for wear and fouling.
- The entire interior of housing, tubes, and inlet vanes are water blasted.
- Tubes, the tubesheet, the housing, etc. are light checked for holes.
- Typical wear spots on the tubesheet are inspected and repaired as necessary.
- Discharge hoppers are checked for wear, holes, and buildup. Discharge hoppers are water blasted.
- Air locks and / or double flapper valves are checked and lubricated.
- The secondary cyclone is water blasted and checked for wear. The discharge airlock is checked and lubricated.
- The secondary cyclone fan is checked and the rotating assembly replaced as necessary.
- The Western collector is water blasted and inspected for wear.

Record Keeping

Daily
The process operator will perform the qualitative parametric monitoring items as listed above. Any operating deviations and corrective action taken will be logged in the shift log. Pressure drop information will be available from the PI data historian. Examples of operating deviations that would be included in the shift log include (but are not limited to) such items as ash dravers (airlocks) not working, fan failure, low temperatures in hoppers or ductwork that would indicate pluggage.

Annually
Work orders for annual inspections will be generated electronically and automatically by the Marcam Maintenance Management System. The work order will include the OMP checklist items. Work order checklist completion as well as general repair comments will be entered by the area maintenance planner into Marcam after completion of the work to document completeness and corrective actions necessary. The work order data is stored electronically and available for up to five years.

Dry Electrostatic Precipitator Agency Operation & Maintenance Plan

---

Facility: Grain Processing Corporation
EIQ Number: 92-2259
Emission Units: 5207.0 -Boiler No. 7
Emission Point: 1.0 GEP Stack
Control Equipment: Dry Electrostatic Precipitator

Introduction

Grain Processing Corporation has six bituminous boilers that utilize multi-cyclone control equipment and a dry precipitator for particulate emission reduction. Boiler 7 utilizes a primary Joy-Western multi-cyclone collection system followed by a secondary dry electrostatic precipitator. All six coal fired boilers exhaust through a common duct system to the tall common GEP stack. For this reason visible VE's can not be read on individual boiler exhausts.

Each of the coal fired boilers have non-compliance, information only, continuous opacity monitors. Tthe combined emissions of all boilers are monitored continuously for opacity by a transmissometer (COM) for the combined GEP stack.

Monitoring/Operation

Shift/Daily

- Each shift: Operator reviews precipitator controller field panel parameters for A, B, and C fields. Typical operating ranges for all three fields are:

Sparks/Minute	AC Voltage	AC-Current (amps)	DC-Kilovolts	DV-mAmps
70-80	240-340	48-80	34-44	280-500

- Continuously: Non-compliance discharge opacity measurements for boiler 7 are made continuously and displayed on the Pro Vox consoles. Preventative maintenance is performed on these opacity analyzers each calendar quarter.
- Each shift: The operator audibly checks for rapper operation.
- Continuously: A high level switch is located in the discharge hopper of the precipitator and a high level reading will trip the panel alarm in the control room.
- Each shift: The operator checks for draft on the ball valves on hoppers above the air locks.
- Continuously: The total combined boilers' GEP stack opacity is continuously monitored and the information captured and stored via a data logger computer and data acquisition system. Quarterly summaries of average hourly opacity readings are generated on hard-copy and submitted to the DNR at the end of each calendar quarter.

.**Maintenance/Preventative Maintenance**

Shift/Daily

- Periodic Monitoring is not required during a daily down period when a boiler system is down for more than one day.

- Each shift, the process operator checks hopper discharge airlocks and flappers for rotation and stroke. The operator feels the piping below the airlocks to determine if the ash is flowing freely (hot pipe) or blocked (cool pipe).

Annually

- The entire boiler and electrostatic precipitator is taken down.
- The entire interior of the precipitator is inspected and washed down.
- Insulators on T-R sets are inspected, cleaned, and replaced as necessary.
- Rapper alignment is checked and corrected as necessary.
- Ceramic stabilizer (anti-sway) bars are inspected and replaced as necessary.
- The precipitator housing is light checked for holes and wear spots.
- Discharge hoppers are checked for wear, holes, and buildup. Discharge hoppers are water blasted.
- Air locks and / or double flapper valves are checked and lubricated.
- Areas between plates are inspected for tramp metal before dry startup.
- Discharge airlocks and conveyors are inspected for wear and rotating assemblies. Bearings are replaced and lubricated as needed.
- The precipitator is dry-fired to check for shorts or other problems before boiler startup.

Record Keeping

Daily

The process operator will perform the qualitative parametric monitoring items as listed above. Any operating deviations and corrective action taken will be logged in the shift log. Examples of deviations that would be logged include (but are not limited to) such items as the rappers not working, spark rate out of range, airlocks not working, plugging or failure of the discharge ash conveyor under the precipitator.

Annually

Work orders for annual inspections will be generated electronically and automatically by the Marcam Maintenance Management System. The work order will include the OMP checklist items. Work order checklist completion as well as general repair comments will be entered by the area maintenance planner into Marcam after completion of the work to document completeness and corrective actions necessary. The work order data is stored electronically and available for up to five years.

Emission Point ID Number: See Table: Emergency Bypass Stacks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Emergency Bypass Stacks
Emissions Control Equipment ID Number: See Table: Emergency Bypass Stacks
Emissions Control Equipment Description: See Table: Emergency Bypass Stacks

---

Applicable Requirements

Table: Emergency Bypass Stacks

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (MMBtu/hr)
2.0	5201.0	Boiler No. 1	5201-1	Multiclone	Coal or Natural Gas	120
	5202.0	Boiler No.2	5202-1	Multiclone	Coal or Natural Gas	120
3.0	5203.0	Boiler No. 3	5203-1	Multiclone	Coal or Natural Gas	105
4.0	5204.0	Boiler No. 4	5204-1	Multiclone	Coal or Natural Gas	105
6.0	5206.0	Boiler No. 6	5206-1	Multiclone	Coal or Natural Gas	230
107.0	5207.0	Boiler No. 7	5207-1	Multiclone	Coal or Natural Gas	230
			5207-2	ESP		

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2) – Coal Combustion
Emission Limit(s): 6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(3)"a"(3)

Pollutant: Sulfur Dioxide (SO_2) – Natural Gas Combustion
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

These boilers shall not be operated while ducted to the "short stacks" (bypass stacks).

Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: 103.0 and 104.0

Associated Equipment

Associated Emission Unit ID Numbers: 5208.0, 5209.0

Applicable Requirements

Emission Unit vented through this Emission Point (Emission Point 103.0): 5208.0
Emission Unit Description: Power House Boiler No. 8
Raw Material/Fuel: Natural Gas
Rated Capacity: 122.00 MMBtu/hr

Emission Unit vented through this Emission Point (Emission Point 104.0): 5209.0
Emission Unit Description: Power House Boiler No. 9
Raw Material/Fuel: Natural Gas
Rated Capacity: 124 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permit 73-A-191 (103.0)
Iowa DNR Construction Permit 74-A-159 (104.0)
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb./MMBtu
Authority for Requirement: Iowa DNR Construction Permit 73-A-191 (103.0)
Iowa DNR Construction Permit 74-A-159 (104.0)
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: 142.0 and 153.0

Associated Equipment

Associated Emission Unit ID Numbers: 5210.0, 5211.0

Applicable Requirements

Emission Unit vented through this Emission Point (Emission Point 142.0): 5210.0
Emission Unit Description: Power House Boiler No. 10
Raw Material/Fuel: Natural Gas
Rated Capacity: 120 MMBtu/hr

Emission Unit vented through this Emission Point (Emission Point 153.0): 5211.0
Emission Unit Description: Power House Boiler No. 11
Raw Material/Fuel: Natural Gas
Rated Capacity: 120 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.02 lb./MMBtu
Authority for Requirement: Iowa DNR Construction Permit 85-A-038 (142.0)
Iowa DNR Construction Permit 85-A-135 (153.0)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 177.0

Associated Equipment

Associated Emission Unit ID Numbers: 5212.0
Emissions Control Equipment ID Number: 5212-1, 5212-2
Emissions Control Equipment Description: Low NOx Burners
Continuous Emissions Monitors ID Number: 5112-M-1

Applicable Requirements

Emission Unit vented through this Emission Point: 5212.0
Emission Unit Description: Power House Boiler No. 12
Raw Material/Fuel: Natural Gas
Rated Capacity: 359.6 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.1 lb./MMBtu
Authority for Requirement: 567 IAC 23.1(2)"a"
40 CFR 60.42(a)(1)
567 IAC 23.1(2)"ccc"

Pollutant: PM_{10}
Emission Limit(s): 1.9 lb./hr and 8.4 TPY
Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 0.23 lb./hr and 1.0 TPY
Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 67.3 lb./hr, 0.20 lb/MMBtu[(1)], and 294.5 TPY
Authority for Requirement: Iowa DNR Construction Permit 93-A-110
40 CFR 60.44b(l)(1)
567 IAC 23.1(2)"ccc"
[(1)] Based on a thirty-day rolling average calculated using the average of hourly NOx emissions for each unit operating day.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1.08 lb./hr and 4.71 TPY
Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 13.4 lb./hr and 58.9 TPY
Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
Only natural gas shall be used to fuel this source.

Authority for Requirement: Iowa DNR Construction Permit 93-A-110

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (meters): 39.6
Stack Diameter (meters): 1.5
Stack Exhaust Velocity (m/s): 29.1
Stack Temperature (^{o}K): 450
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Stack Location: 57.2 meters east and 34.3 meters south of the main "GEP" boiler stack at GPC.
Authority for Requirement: Iowa DNR Construction Permit 93-A-110

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Continuous Emissions Monitoring:

Pollutant – Nitrogen Oxides (NOx)
Operational Specifications – 40 CFR 60 Appendix B Performance Specification 2
Date of Initial System Calibration and Quality Assurance – December 29, 1994
Ongoing System Calibration/Quality Assurance – 40 CFR 60 Appendix F Procedure 1
Reporting & Record keeping – 40 CFR 60.7(c) and (d)
Authority for Requirement - Iowa DNR Construction Permit 93-A-110

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 124.0

Associated Equipment

Associated Emission Unit ID Numbers: 5213.0
Emissions Control Equipment ID Number: 5213-1, 5213-2
Emissions Control Equipment Description: Two High Efficiency Cyclones and Baghouse

---

Applicable Requirements

Emission Unit vented through this Emission Point: 5213.0
Emission Unit Description: Ash Silo
Raw Material/Fuel: Fly Ash
Rated Capacity: 2.90 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 77-A-357
567 IAC 23.3(2)"a"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 490.0

Associated Equipment

Associated Emission Unit ID Numbers: 6003.0, 6004.0
Emissions Control Equipment ID Number: 6003-1, 6004-1
Emissions Control Equipment Description: Baghouses

Applicable Requirements

Emission Unit vented through this Emission Point: 6003.0
Emission Unit Description: Elevator Corn Unloading (A)
Raw Material/Fuel: Corn
Rated Capacity: 50 TPH

Emission Unit vented through this Emission Point: 6004.0
Emission Unit Description: Elevator Corn Unloading (B)
Raw Material/Fuel: Corn
Rated Capacity: 85 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-687
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./dscf[(2)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-687
567 IAC 23.4(7)

[(2)]Standard is expressed as the average of 3 runs.

Pollutant: PM_{10}
Emission Limit(s): 3.08 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-687

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 168
Stack Diameter (inches): 42
Stack Exhaust Flow Rate (scfm): 30,000
Stack Temperature (^{o}F): 70
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-687

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed by (date) – October 9, 2003
Test Method – 40 CFR 60, Appendix A, Method 9
Test time to be 1 hour.
Authority for Requirement - Iowa DNR Construction Permit 02-A-687

Pollutant – PM_{10}
Stack Test to be Completed by (date) – October 9, 2003
Test Method – 40 CFR 51, Appendix M, 201A with 202[(1)]
Test run time to be 3 hours.
Authority for Requirement: Iowa DNR Construction Permit 02-A-687

[(1)]Or approved alternative.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Elevator Area Corn Unloading - "A" Baghouse Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Unit:	6003.0 Elevator "A" Corn Unloading
Emission Point:	490.0
Control Equipment:	Baghouse (6003-1)

Introduction
Grain Processing Corporation, Muscatine Plant, utilizes a fabric filter baghouse for particulate emission control for grain truck and rail unloading at the north elevator area.

Maintenance / Preventative Maintenance Schedule

Daily:
During normal daily equipment walk-through, the operator will observe the general exterior condition of the collector, ductwork, airlock and fan. Only if there is a problem will the operator make a note in the daily shift log and generate a maintenance work order.

Monthly:
A monthly inspection of the baghouse, the airlock under the baghouse, the fan and the dust blower is triggered by the MARCAM maintenance management system. Included in the inspection is:

Inspection of the dust collector body
Inspection of the bags, cages, venturi's and tube sheet
Inspection of the "bag popper" system
Check of condition of explosion doors

Also included is inspection of support equipment:
R3419 – Airlock under dust cover
R3420 – Dust blower
R3421 – Fan over drive dust system

Corrective actions taken during preventative maintenance are recorded in the work order history.

Elevator Area Corn Unloading - "B" Baghouse Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Unit:	6004.0 Elevator "B" Corn Unloading
Emission Point:	490.0
Control Equipment:	Baghouse (6004-1)

Introduction

Grain Processing Corporation, Muscatine Plant, utilizes a fabric filter baghouse for particulate emission control for grain truck and rail unloading at the north elevator area.

Maintenance / Preventative Maintenance Schedule

Daily:

During normal daily equipment walk-through, the operator will observe the general exterior condition of the collector, ductwork, airlock and fan. Only if there is a problem will the operator make a note in the daily shift log and generate a maintenance work order.

Monthly:

A monthly inspection of the baghouse, the airlock under the baghouse, the fan and the dust blower is triggered by the MARCAM maintenance management system. Included in the inspection is:

Inspection of the dust collector body
Inspection of the bags, cages, venturi's and tube sheet
Inspection of the "bag popper" system
Check of condition of explosion doors

Also included is inspection of support equipment:
R3424 – Rotary Valve
R3426 – Main Fan Truck Dump Filter
R3427 – Roots Blower

Corrective actions taken during preventative maintenance are recorded in the work order history.

Emission Point ID Number: See Table: Wet Germ Cyclones

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Wet Germ Cyclones
Emissions Control Equipment ID Number: See Table: Wet Germ Cyclones
Emissions Control Equipment Description: See Table: Wet Germ Cyclones

---

Applicable Requirements

Table: Wet Germ Cyclones

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
14.0	2801.0	No. 1 Wet Germ Cyclone	2801-1	Cyclone	Wet Germ	6.65
96.0	2803.0	No. 2 Wet Germ Cyclone	2803-1	Cyclone	Wet Germ	6.65
194.0	2894.0	No. 3 Wet Germ Cyclone	2894-1	Cyclone	Wet Germ	28

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Table: Wet Germ Cyclones-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	PM_{10} Limit	SO_2 Limit (ppmv)	Construction Permit No.
14.0	2801.0	40 %	0.1 gr./scf	N/A	500	None
96.0	2803.0	40 %	0.1gr./scf	N/A	500	74-A-014
194.0	2894.0	40%[(1)]	0.1 gr./dscf	0.07lb./hr	500	02-A-783-S1

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Opacity
Emission Limit: 40 %
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Wet Germ
. Cyclones- Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit: 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Wet Germ
. Cyclones- Emission Limits
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Emission Point Characteristics For Emission Point 194.0
The emission point shall conform to the specifications listed below.

Stack Height (feet): 59
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (scfm): 2,500
Stack Temperature (^oF): 80
Discharge Style: unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-783-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Germ Dryers

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Germ Dryers
Emissions Control Equipment ID Number: See Table: Germ Dryers
Emissions Control Equipment Description: See Table: Germ Dryers

---

Applicable Requirements

Table: Germ Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material	Rated Capacity (tons/hr)
15.0	2802.0	No. 1 Germ Dryer	2802-1	Cyclone	Wet Germ	6.65
	2802.1	No. 2 Germ Dryer			Wet Germ	6.65
97.0	2804.0	No. 3 Germ Dryer	2804-1	Cyclone	Wet Germ	6.65
126.0	2807.0	No. 4 Germ Dryer	2807-1	Cyclone	Wet Germ	6.65
178.0	2872.0	No. 5 Germ Dryer	2872-1	Cyclone	Wet Germ	13.8

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Table: Germ Dryers-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limits			SO_2 Limit	Construction Permit No.
			Gr./scf	Lb./hr	Tons/yr		
15.0	2802.0	40 %	0.1	7.41	N/A	13.73 lb./hr	79-A-194-S
	2802.1	40 %					
97.0	2804.0	40 %	0.1	4.71	N/A	9.20 lb./hr	74-A-015-S
126.0	2807.0	40 %	0.1	N/A	N/A	0.53 lb./hr	79-A-195-S
178.0	2872.0	40 %	0.1	4.19	18.3	500 ppmv	91-A-176

Pollutant: Opacity
Emission Limit: 40 %
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Germ Dryers-Emission Limits.
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit: See Table: Germ Dryers-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Germ Dryers-Emission Limits
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2) (Except For Emission Unit 2872.0)
Emission Limit: See Table: Germ Dryers-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Germ Dryers-Emission Limits.

Pollutant: Sulfur Dioxide (SO_2) (For Emission Unit 2872.0 Only)
Emission Limit: 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Emission Point Characteristics

These emission points shall conform to the conditions specified in Table: Germ Dryers-Emission Point Characteristics.

Table: Germ Dryers-Emission Point Characteristics

Emission Point Number	Emission Unit Number	Construction Permit No.	Height (Ft.)	Exhaust Flowrate	Exhaust Temp. (^oF)	Vertical Unobstructed Discharge Required?
15.0	2802.0 2802.1	79-A-194-S	94	10,962 acfm	212	No
97.0	2804.0	74-A-015-S	84	6,969 acfm	212	No
126.0	2807.0	79-A-195-S	74	4,400 acfm	212	No
178.0	2872.0	91-A-176	N/A	9,777 scfm	N/A	No

Authority for Requirement: Iowa DNR Construction Permits specified in Table: Germ Dryers-Emission Point Characteristics.

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: Required for Emission Point 15.0 only[(1)].

Pollutant - Sulfur Dioxide (SO_2)
Stack Test to be Completed by – September 8, 2005
Test Method - Method 6C, 40 CFR 60
Authority for Requirement - 567 IAC 22.108(3)

[(1)] Both Germ Dryers No. 1 and 2 must be operating during the test.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: P&S Dryers 1-4

Associated Equipment

Associated Emission Unit ID Number: See Table: P&S Dryers 1-4
Emissions Control Equipment ID Numbers: See Table: P&S Dryers 1-4
Emissions Control Equipment Description: See Table: P&S Dryers 1-4

Applicable Requirements

Table: P&S Dryers 1-4

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (Tons/hr)
24.1	2404.0	No. 1 P&S Dryer	2404-1	High Efficiency Cyclone	Corn Starch	4.25
25.1						
26.1						
24.2	2405.0	No. 2 P&S Dryer	2405-1	High Efficiency Cyclone	Corn Starch	4.25
25.2						
26.2						
24.3	2406.0	No. 3 P&S Dryer	2406-1	High Efficiency Cyclone	Corn Starch	4.25
25.3						
26.3						
24.4	2407.0	No. 4 P&S Dryer	2407-1	High Efficiency Cyclone	Corn Starch	4.25
25.4						
26.4						

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: P&S Dryers 7-10

Associated Equipment

Associated Emission Unit ID Number: See Table: P&S Dryers 7-10
Emissions Control Equipment ID Numbers: See Table: P&S Dryers 7-10
Emissions Control Equipment Description: See Table: P&S Dryers 7-10

Applicable Requirements

Table: P&S Dryers 7-10

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (Tons/hr)
59.1	2410.0	No. 7 P&S Dryer	2410-1	High Efficiency Cyclone	Corn Starch	4.25
59.2						
59.3						
101.1	2413.0	No. 8 P&S Dryer	2413-1	High Efficiency Cyclone	Corn Starch	4.25
101.2						
101.3						
91.1	2411.0	No. 9 P&S Dryer	2411-1	High Efficiency Cyclone	Corn Starch	4.25
91.2						
91.3						
92.1	2412.0	No. 10 P&S Dryer	2412-1	High Efficiency Cyclone	Corn Starch	4.25
92.2						
92.3						

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Table: P&S Dryers 7-10-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	Construction Permit No.
59.1	2410.0	40%	0.1 gr./scf	72-A-155
59.2		40%	0.1 gr./scf	
59.3		40%	0.1 gr./scf	
101.1	2413.0	40%	0.1 gr./scf	74-A-008
101.2		40%	0.1 gr./scf	
101.3		40%	0.1 gr./scf	
91.1	3411.0	40%	0.1 gr./scf	74-A-009
91.2		40%	0.1 gr./scf	
91.3		40%	0.1 gr./scf	

Table: P&S Dryers 7-10-Emission Limits (Cont.)

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	Construction Permit No.
92.1	2412.0	40%	0.1 gr./scf	74-A-010
92.2		40%	0.1 gr./scf	
92.3		40%	0.1 gr./scf	

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits specified in Table: P & S Dryers 7-10 - Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: P & S Dryers 7-10-Emission Limits
567 IAC 23.4(7)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: 121.1, 121.2, and 121.3

Associated Equipment

Associated Emission Unit ID Number: 2414.0
Emissions Control Equipment ID Number: 2414-1
Emissions Control Equipment Description: High Efficiency Cyclone

---

Applicable Requirements

Emission Unit vented through these Emission Points: 2414.0
Emission Unit Description: No. 11 P&S Dryer
Raw Material/Fuel: Corn Starch
Rated Capacity: 4.25 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits 76-A-209 through 211
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: Required for Emission Point 121.3 only[(1)].
Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)
[(1)]If No. 11 P&S Dryer is out of service by the time testing is required, another P&S Dryer may be tested instead.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Dryer House 1 - Mill Product Aerodynes

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer house 1 - Mill Product Aerodynes
Emissions Control Equipment ID Number: See Table: Dryer House 1 - Mill Product Aerodynes
Emissions Control Equipment Description: See Table: Dryer House 1 - Mill Product Aerodynes

---

Applicable Requirements

Table: Dryer House 1 - Mill Product Aerodynes

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (Tons/hr)
28.1	1201.0	No. 1 Mill Aerodyne	1201-2	High Efficiency Cyclone	Distillers Dark Grains	2.155
28.2	1202.0	No. 2 Mill Aerodyne	1202-2	High Efficiency Cyclone	Distillers Dark Grains	2.155
28.3	1203.0	No. 3 Mill Aerodyne	1203-2	High Efficiency Cyclone	Distillers Dark Grains	2.155

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 71-A-003
567 IAC 23.4(7)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Dryer House 1-Rotary Dryers

Associated Equipment

Associated Emission Unit ID Number: See Table: Dryer House 1-Rotary Dryers
Emissions Control Equipment ID Numbers: See Table: Dryer House 1-Rotary Dryers
Emissions Control Equipment Description: See Table: Dryer House 1-Rotary Dryers

---

Applicable Requirements

Table: Dryer House 1-Rotary Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
32.1	1207.0	No. 1 Rotary Dryer	1207-1	Expansion Chamber	Distillers Dark Grains	1.625
32.2	1208.0	No. 2 Rotary Dryer	1207-2	Expansion Chamber	Distillers Dark Grains	1.625
32.3	1209.0	No. 3 Rotary Dryer	1207-3	Expansion Chamber	Distillers Dark Grains	1.625
32.4	1210.0	No. 4 Rotary Dryer	1207-4	Expansion Chamber	Distillers Dark Grains	1.625
32.5	1211.0	No. 5 Rotary Dryer	1207-5	Expansion Chamber	Distillers Dark Grains	1.625
32.6	1212.0	No. 6 Rotary Dryer	1207-6	Expansion Chamber	Distillers Dark Grains	1.625

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 38.0

Associated Equipment

Associated Emission Unit ID Numbers: 1213.0
Emissions Control Equipment ID Number: 1213-1
Emissions Control Equipment Description: High Efficiency Cyclone

---

Applicable Requirements

Emission Unit vented through this Emission Point: 1213.0
Emission Unit Description: Dryer House 2-Gluten Meal Day Bin Transfer
Raw Material/Fuel: Gluten Meal
Rated Capacity: 6.76 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 71-A-067-S
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 40.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer House 2-Rotary Dryer
Emissions Control Equipment ID Numbers: See Table: Dryer House 2-Rotary Dryer
Emissions Control Equipment Description: See Table: Dryer House 2-Rotary Dryer

---

Applicable Requirements

Table: Dryer House 2- Rotary Dryer

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
1214.0	Dryer House 2-Rotary Dryer / Distiller's Dark Grains	1214-1 1214-2	Packed Bed Scrubber	Distiller's Dark Grains	14.2 TPH
1214.1	Dryer House 2-Rotary Dryer / Natural Gas Combustion		Venturi Scrubber	Natural Gas	35 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permit 74-A-130-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 74-A-130-S1
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Venturi and Packed Bed Scrubber Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	1214.0, 1214.1 Rotary Dryer-Grain and Natural Gas Emissions
Emission Point:	40.0
Control Equipment:	Venturi Scrubber (1214-1) and Packed Bed Scrubber (1214-2)

Introduction
Grain Processing Corporation, Muscatine Plant, has two scrubbers used in series for particulate emission reduction on the exhaust of DH2 Rotary Feed Dryer. The first scrubber is a venturi scrubber followed by a packed bed scrubber.

Maintenance / Preventative Maintenance

Daily:
During normal daily equipment walk-through, the operator will observe the general exterior condition of the scrubbers, fans, pumps, piping and ductwork. Only if there is a problem will the operator make a note in the daily shift log and generate a work order.

Bi-Monthly:
Scrubber fan, R3029, is lubricated by maintenance personnel. Vibration level is monitored with portable vibration monitor. Lubrication and vibration check schedule is triggered by MARCAM.

Semi-Annually:
Maintenance personnel lubricate scrubber fan, R3029, motor. Unit is also checked with the vibration monitor. Lubrication and vibration checks are scheduled by the MARCAM maintenance management system.

Annually:
Both scrubbers will undergo annual inspections by operations personnel. Annual maintenance inspections will occur for R3031-Scrubber Tank Pump, R3036-Packed Bed Recycle Pump. And R3029-DH No. 2 Scrubber fan. These inspections will be initiated automatically by using the MARCAM maintenance management system.

The annual inspection checklists will contain the following components:

Date of inspection

Scrubbers:
Visible inspection of scrubber housing
Inspect internal surfaces for wear or buildup
Inspect spray nozzles
Inspect for structural damage or problems with vanes
Inspect and clean entrainment eliminators
Remove, clean, replace and add new packing as needed
Scrubber inspection information will be maintained by Operations

Ductwork:
Inspect for wear or buildup

Scrubber Recirculation Pumps and Make-Up Pumps:
R3031-Scrubber Tank Pump, R3036-Packed Bed Recycle Pump
Check packing or mechanical seal and gland water lines
Drain oil

Check adapter and hold down bolts for tightness
Replace drain plug, refill with new oil
Check coupling condition and alignment-repair or replace as needed

Scrubber Fan:
R3029-DH No. 2 Scrubber Fan
Inspect housing-repair as needed
Inspect fan wheel-repair or replace as needed
Inspect bearings-replace as needed
Repack fan bearings
Check belts-replace as needed
Check motor, baseplate bolts.

Emission Point ID Number: 41.0

Associated Equipment

Associated Emission Unit ID Numbers: 1215.0
Emissions Control Equipment ID Number: 1215-1
Emissions Control Equipment Description: Cyclone

Applicable Requirements

Emission Unit vented through this Emission Point:
Emission Unit Description: Dryer House 2- Dryer End Pickup
Raw Material/Fuel: Distillers Dark Grains
Rated Capacity: 14.4 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
1st Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 42.0

Associated Equipment

Associated Emission Unit ID Numbers: 1216.0
Emissions Control Equipment ID Number: 1216-1
Emissions Control Equipment Description: High Efficiency Cyclone

---

Applicable Requirements

Emission Unit vented through this Emission Point: 1216.0
Emission Unit Description: Dryer House 2 – No. 1 Mill Aerodyne
Raw Material/Fuel: Distillers Dark Grains
Rated Capacity: 7.2 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Gluten Flash Dryers 1-3

Associated Equipment

Associated Emission Unit ID Number: See Table: Gluten Flash Dryers 1-3
Emissions Control Equipment ID Numbers: See Table: Gluten Flash Dryers 1-3
Emissions Control Equipment Description: See Table: Gluten Flash Dryers 1-3

Applicable Requirements

Table: Gluten Flash Dryers 1-3

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
43.1	1217.0	No. 1 Gluten Flash Dryer-Gluten Meal	1217-1	Venturi Scrubber	Gluten Meal	1.35 TPH
			1217-2	Packed Bed Scrubber		
	1217.1	No. 1 Gluten Flash Dryer-Natural Gas Combustion	1217-1	Venturi Scrubber	Natural Gas	18 MMBtu/hr
			1217-2	Packed Bed Scrubber		
	1217.2	No. 2 Gluten Flash Dryer-Gluten Meal	1217-1	Venturi Scrubber	Gluten Meal	1.35 TPH
			1217-2	Packed Bed Scrubber		
	1217.3	No. 2 Gluten Flash Dryer-Natural Gas Combustion	1217-1	Venturi Scrubber	Natural Gas	14 MMBtu/hr
			1217-2	Packed Bed Scrubber		
43.2	1217.0	No. 1 Gluten Flash Dryer-Gluten Meal-**Bypass Stack**	None		Gluten Meal	1.35 TPH
	1217.1	No. 1 Gluten Flash Dryer-Natural Gas Combustion-**Bypass Stack**			Natural Gas	18 MMBtu/hr
43.3	1217.2	No. 2 Gluten Flash Dryer-Gluten Meal-**Bypass Stack**			Gluten Meal	1.35 TPH
	1217.3	No. 2 Gluten Flash Dryer-Natural Gas Combustion-**Bypass Stack**			Natural Gas	14 MMBtu/hr

Table: Gluten Flash Dryers 1-3 (Cont.)

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
46.0	1221.0	No. 3 Gluten & Hull Flash Dryer-Gluten & Corn Hulls	1221-1	Venturi Scrubber	Gluten Meal & Corn Hulls	3.2 TPH
			1221-2	Packed Bed Scrubber		
	1221.1	No. 3 Gluten & Hull Flash Dryer-Natural Gas Combustion	1221-1	Venturi Scrubber	Natural Gas	14 MMBtu/hr
			1221-2	Packed Bed Scrubber		
46.1	1221.0	No. 3 Gluten & Hull Flash Dryer-Gluten & Corn Hulls-**Bypass Stack**	None		Gluten Meal & Corn Hulls	3.2 TPH
	1221.1	No. 3 Gluten & Hull Flash Dryer-Natural Gas Combustion-**Bypass Stack**			Natural Gas	14 MMBtu/hr

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the following specified levels.

Table: Gluten Flash Dryers 1-3-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	SO_2 Limit (ppmv)	Construction Permit Number
43.1	1217.0	40%	0.1 gr./scf	500	75-A-087
	1217.1				
	1217.2				
	1217.3				
43.2	1217.0	40%	0.1 gr./scf	500	N/A
	1217.1				
43.3	1217.2	40%	0.1 gr./scf	500	N/A
	1217.3				
46.0	1221.0	40%	0.1 gr./scf	500	75-A-089
	1221.1				
46.1	1221.0	40%	0.1 gr./scf	500	N/A
	1221.1				

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Gluten Flash Dryers 1-3- Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Gluten Flash Dryers-Emission Limits
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: Required for Emission Point 46.0 only.
Pollutant – Particulate Matter (PM)
1st Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Gluten Flash Dryer Scrubbers Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	1217.0, 1217.1, 1217.2, 1217.3 Nos. 1 & 2 Gluten Flash Dryers-Gluten Meal and Natural Gas Combustion 1221.0, 1221.1 No. 3 Gluten Flash Dryer-Gluten and Hulls and Natural Gas Emissions 1244.0, 1244.1 No. 4 Gluten Flash Dryer-Gluten Meal and Natural Gas Combustion
Emission Points:	43.1, 46.0, 173.0
Control Equipment:	Venturi Scrubbers (1217-1,1221-1), Packed Bed Scrubber (1217-2, 1221-2) and Impingement Scrubber (1244-1)

Introduction

Grain Processing Corporation, Muscatine Plant, has two scrubbers used in series for particulate emission reduction on the exhaust of Unit 3 Gluten Flash Dryer. The first scrubber is a venturi scrubber followed by a packed bed scrubber.

Maintenance / Preventative Maintenance

Daily:
During normal daily equipment walk-through, the operator will observe the general exterior condition of the scrubbers, fans, pumps and ductwork. Only if there is a problem will the operator make a note in the daily shift log.

Bi-Weekly:
Bearings are lubricated every two weeks on GP2 Scrubber ID Fan, R2251 as scheduled via the MARCAM system.

Bi-Monthly:
Bearings are lubricated and vibration is monitored with the portable vibration monitor every two months on the following:

R2395 - No. 2 Scrubber Packed Bed Fan
R2405 - No. 2 Unit ID Fan
R2407 - No. 1 & No. 2 Units Fan Scrubber
R2408 - No. 1 Unit ID Fan
R2399 – 3rd Unit ID Fan
R2251 – GP2 Scrubber I.D. Fan

Maintenance schedule is triggered via the MARCAM maintenance management system.

Semi-Annually:
Fan motors are lubricated on a semi-annual basis. Also, a fan inspection and repack of fan bearings takes place on a semi-annual basis. Affected units include:

R2395 - No. 2 Scrubber Packed Bed Fan
R2405 - No. 2 Unit ID Fan
R2407 - No. 1 & No. 2 Units Fan Scrubber
R2408 - No. 1 Unit ID Fan
R2399 – 3rd Unit ID Fan
R2251 – GP2 Scrubber I.D. Fan

Maintenance schedule is triggered by MARCAM

Annually:
Both scrubbers will undergo annual inspections by operations personnel and maintenance personnel. Maintenance inspections are initiated automatically by using the MARCAM maintenance system.

The annual inspection checklists will contain the following components:

Date of inspection

Scrubbers:
Visible inspection of scrubber housing
Inspect internal surfaces for wear or buildup
Inspect spray nozzles
Inspect for structural damage or problems with vanes
Inspect and clean entrainment eliminators
Remove, clean, reinstall and replace packing as needed

Ductwork:
Inspect for wear and/or buildup

Scrubber Recirculation Pumps and Make-Up Pumps:
Affected units include:
R2212-GP2 Scrubber Makeup Pump
R2243-GP2 Scrubber North Recirculating Pump
R2244-GP2 Scrubber South Recirculating Pump

Check pump for water, oil, or product leaks
Check packing, mechanical seal and gland water lines
Drain oil
Check adapter and hold down bolts for tightness
Replace drain plug, refill oil
Check coupling for wear, alignment. Repair or replace as needed

.

Emission Point ID Number: 173.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: No. 4 Gluten Flash Dryer
Emissions Control Equipment ID Numbers: See Table: No. 4 Gluten Flash Dryer
Emissions Control Equipment Description: See Table: No. 4 Gluten Flash Dryer

---

Applicable Requirements

Table: No. 4 Gluten Flash Dryer

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
1244.0	No. 4 Gluten Flash Dryer / Gluten Meal	1244-1	Impingement Scrubber	Gluten Meal	6.13 TPH
1244.1	No. 4 Gluten Flash Dryer / Natural Gas Combustion			Natural Gas	28.8 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.3 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 91-A-067

Pollutant: PM_{10}
Emission Limit(s): 2.55 lb./hr and 11.0 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-067

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
1st Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM_{10}
Stack Test to be Completed by (date) – September 8, 2005
Test Method – 40 CFR 51, Appendix M, 202[(1)]
Authority for Requirement - 567 IAC 22.108(3)
[(1)]Or approved alternative.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Combined Agency Operation & Maintenance Plan for Gluten Meal Flash Dryer Scrubbers on pages 69-70.

Emission Point ID Number: 174.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: No. 4 Gluten Pre-Mill Cooling System
Emissions Control Equipment ID Numbers: See Table: No. 4 Gluten Pre-Mill Cooling System
Emissions Control Equipment Description: See Table: No. 4 Gluten Pre-Mill Cooling System

---

Applicable Requirements

Table: No. 4 Gluten Pre-Mill Cooling System

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
1245.0	No. 4 Gluten Pre-Mill Cooling System	1245-1	Baghouse	Corn Gluten	6.13
1246.0	No. 4 Gluten Pre-Mill Cooling System			Corn Gluten	6.13

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.77 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 91-A-068

Pollutant: PM_{10}
Emission Limit(s): 0.64 lb./hr and 2.8 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-068

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – September 8, 2005
Test Method - Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM_{10}
Stack Test to be Completed by (date) – September 8, 2005
Test Method – 40 CFR 51, Appendix M, 201A with 202[(1)]
Authority for Requirement - 567 IAC 22.108(3)
[(1)]Or approved alternative

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 531.0

Associated Equipment

Associated Emission Unit ID Numbers: 1260.0
Emissions Control Equipment ID Number: 1260-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 1260.0
Emission Unit Description: GP1 Transport System
Raw Material/Fuel: Animal Feed
Rated Capacity: 10,200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 03-A-471
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.02 gr./dscf(2)
Authority for Requirement: Iowa DNR Construction Permit 03-A-471

(2)Requested by applicant.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Work practice standards:
1. The control equipment shall be maintained according to manufacturer's specifications.

Reporting & Record keeping:
All records required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

1. The owner or operator shall maintain a record of control equipment and inspection results.
2. The owner shall notify DNR of the date of startup of this source within 15 days of the start of operation.

Authority for Requirement: Iowa DNR Construction Permit 03-A-471

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 60
Stack Diameter (inches): 24
Stack Exhaust Flow Rate (scfm): 7,500
Stack Temperature (^{o}F): 75
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 03-A-471

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

The following emission units are connected to the Gluten Plant 1 Pneumatic Transport System:

Description	Capacity
Unit 1 Gluten Dryer	2.55 tons per hour
Unit 2 Gluten Dryer	2.55 tons per hour

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements

Stack Testing:

Pollutant – Opacity
Stack Test to be Completed by (date) – Within 90 days after achieving maximum production rate and no more than 180 days after initial startup date.
Test Method – Method 9, 40 CFR 60
Authority for Requirement - Iowa DNR Construction Permit 03-A-471
.

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – Within 90 days after achieving maximum production rate and no more than 180 days after initial startup date.
Test Method - Iowa Compliance Sampling Manual Method 5
Authority for Requirement - Iowa DNR Construction Permit 03-A-471

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 60.0

Associated Equipment

Associated Emission Unit ID Numbers: 2415.0
Emissions Control Equipment ID Number: 2415-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2415.0
Emission Unit Description: Quonset (Track 3&4 N. Starch) Bulk Loadout
Raw Material/Fuel: Starch
Rated Capacity: 25.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 72-A-155-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.63 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 72-A-155-S1

Pollutant: PM_{10}
Emission Limit(s): 1.63 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 72-A-155-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Work practice standards:
1. This unit shall be operated and maintained per the manufacturers recommendations.

Reporting & Record keeping:
The following records shall be kept onsite to show compliance with this permit. Records shall be maintained for five (5) years.
1. A copy of the manufacturers recommended operation and maintenance schedules should be kept available for inspection. A log of all maintenance performed on the baghouse must be kept as well.

Authority for Requirement: Iowa DNR Construction Permit 72-A-155-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 50
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (cfm): 4,200
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 72-A-155-S1

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Maltrin® Spray Dryers 1-4

Associated Equipment

Associated Emission Unit ID Number: See Table: Maltrin® Spray Dryers 1-4
Emissions Control Equipment ID Numbers: See Table: Maltrin® Spray Dryers 1-4
Emissions Control Equipment Description: See Table: Maltrin® Spray Dryers 1-4

Applicable Requirements

Table: Maltrin® Spray Dryers 1-4

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
66.0	3101.0	No. 1 Maltrin® Spray Dryer-Maltodextrin	3101-1	Wet Scrubber	Maltodextrin	1.5 TPH
	3101.1	No. 1 Maltrin® Spray Dryer-Natural Gas Combustion			Natural Gas	10 MMBtu/hr
132.1	3111.0	No. 3 Maltrin® Spray Dryer-Maltodextrin	3111-1	Venturi Scrubber	Maltodextrin	3.26 TPH
132.2	3111.1	No. 3 Maltrin® Spray Dryer-Natural Gas Combustion	3111-2	Venturi Scrubber	Natural Gas	18 MMBtu/hr
135.0	3110.0	No. 4 Maltrin® Spray Dryer-Maltodextrin	3110-1	Packed Bed Scrubber	Maltodextrin	4.17 TPH
136.0	3110.1	No. 4 Maltrin® Spray Dryer-Natural Gas Combustion	3110-2	Packed Bed Scrubber	Natural Gas	24 MMBtu/hr

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the following specified levels.

Table: Maltrin® Spray Dryers 1-4 -Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	PM_{10} Limit (lb./hr)[2]	SO_2 Limit (ppmv)	Construction Permit No.
66.0	3101.0	40%	0.1 gr./scf	N/A	500	72-A-199
	3101.1					
132.1	3111.0	40%[1]	0.1 gr./dscf and 7.07 lb./hr[2]	7.07	500	80-A-149-S4
132.2	3111.1	40%[1]	0.1 gr./dscf and 7.07 lb./hr[2]	7.07	500	80-A-150-S4

Table: Maltrin® Spray Dryers 1-4 -Emission Limits (cont.)

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	PM_{10} Limit (lb./hr)[2]	SO_2 Limit (ppmv)	Construction Permit No.
135.0	3110.0	40%	0.03 gr./scf	N/A	500	85-A-031
136.0	3110.1	40%	0.03 gr./scf	N/A	500	85-A-032

[1] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[2] Standard is expressed as the average of 3 runs.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Maltrin® Spray Dryers 1-4 - Emission Limits
. 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): See Table: Maltrin® Spray Dryers 1-4-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Maltrin® Spray Dryers 1-4-Emission Limits

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf (No. 1 Dryer only)
Authority for Requirement: 567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): See Table: Maltrin® Spray Dryers- 1-4-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Maltrin® Spray Dryers-1-4-Emission Limits

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements (For Emission Unit 311-1 only)
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:
1. The fuel used by this unit is limited to natural gas only.

Authority for Requirement: Iowa DNR Construction Permits 80-A-149-S4 (EP 132.1) and
80-A-150-S4 (EP 132.2)

Emission Point Characteristics-For Emission Points 132.1 and 132.2 only.
These emission points shall conform to the specifications listed below.

Stack Height (feet): 135
Stack Diameter (inches): 42
Stack Exhaust Flow Rate (scfm): 27,500
Stack Temperature (^{o}F): 125
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permits 80-A-149-S4 (EP 132.1) and
80-A-150-S4 (EP 132.2)

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: No. 5 Maltrin® Spray Dryer

Associated Equipment

Associated Emission Unit ID Numbers: See Table: No. 5 Maltrin® Spray Dryer
Emissions Control Equipment ID Numbers: See Table: No. 5 Maltrin® Spray Dryer
Emissions Control Equipment Description: See Table: No. 5 Maltrin® Spray Dryer

---

Applicable Requirements

Table: No. 5 Maltrin® Spray Dryer

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity
168.0	3107.0 3107.1	No. 5 Maltrin® Spray Dryer/Maltodextrin No. 5 Maltrin® Spray Dryer/Natural Gas Combustion	3107-1	Packed Bed Scrubber	Maltodextrin	13 TPH
169.0			3107-2	Packed Bed Scrubber	Natural Gas	35 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.
The following emission limits are for each emission point, 168.0 and 169.0.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.015 gr./scf, 4.4 lb./hr, and 12.2 TPY
Authority for Requirement: Iowa DNR Construction Permits 90-A-309 (168.0) and 90-A-310 (169.0)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Hours of operation:
1. These emission units may not operate over 5,256 hours per year.

Reporting & Record keeping: The owner shall maintain and keep a daily log of data for the operation of sources 168.0 and 169.0. The data shall be summarized monthly and available on site to representatives from the department. The following parameters shall be recorded and reported in the Annual Compliance Certification:

1. The particulate matter emitted in lb./hr, tons/hr, and tons/yr.
2. The operation schedule in hr./mo. and hr./yr.
3. Annual emissions and annual hours of operation shall also both be reported in terms of rolling twelve-month averages.

Authority for Requirement: Iowa DNR Construction Permits 90-A-309 and 90-A-310

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Exhaust Flow Rate (scfm): 34,500
Authority for Requirement: Iowa DNR Construction Permits 90-A-309 and 90-A-310

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: No. 6 Maltrin® Spray Dryer

Associated Equipment

Associated Emission Unit ID Numbers: See Table: No. 6 Maltrin® Spray Dryer
Emissions Control Equipment ID Numbers: See Table: No. 6 Maltrin® Spray Dryer
Emissions Control Equipment Description: See Table: No. 6 Maltrin® Spray Dryer

---

Applicable Requirements

Table: No. 6 Maltrin® Spray Dryer

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity
186.0	3116.0 3116.1	No. 6 Maltrin® Spray Dryer/Maltodextrin No. 6 Maltrin® Spray Dryer/Natural Gas Combustion	3116-1	Packed Column Scrubber	Maltodextrin	8.96 TPH
187.0			3116-2	Packed Column Scrubber	Natural Gas	44 MMBtu/hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.
The following emission limits are for each emission point, 186.0. and 187.0.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permits 94-A-055 (186.0) and 94-A-061 (187.0)
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 10.3 lb./hr and 44.5 TPY
Authority for Requirement: Iowa DNR Construction Permits 94-A-055 (186.0)and 94-A-061 (187.0)

Pollutant: PM_{10}
Emission Limit(s): 1.76 lb./hr and 7.6 TPY
Authority for Requirement: Iowa DNR Construction Permits 94-A-055 (186.0) and 94-A-061 (187.0)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Iowa DNR Construction Permits 94-A-055 and 94-A-061 were issued on the condition that the facility pave 300 feet of gravel road near the main grain elevator, a gravel employee parking lot, and the truck loading area for the south grain elevator and keep these paved areas clean and maintained so that no fugitive emissions of any kind occur from these areas.

Process throughput:

1. The maximum capacity of the MALTRIN® Dryer shall not exceed 34,375 lb./hr of feed at 50% moisture.

Reporting & Record keeping:

1. Records which show the maintenance performed on the paved areas and the material inlet to the drier required by Iowa DNR Construction Permits 94-A-055 and 94-A-061 must be kept on site for five (5) years. These records do not have to be sent to the Department but must be available when the facility is inspected.

Authority for Requirement: Iowa DNR Construction Permits 94-A-055 and 94-A-061

Emission Point Characteristics-Stack A (186.0) and B (187.0)

These emission points shall conform to the specifications listed below.

Stack Height (feet): 135
Stack Diameter (inches): 48
Stack Exhaust Flow Rate (scfm): 60,309
Stack Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Location: Stack A (Emission Point 186) is located just west of building 44 (MALTRIN® Plant), about 100 feet south of the NW corner and Stack B (Emission Point 187) is located just west of building 44 (MALTRIN® Plant), at the midpoint of the building (moving north/south).
Authority for Requirement: Iowa DNR Construction Permits 94-A-055 and 94-A-061

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Stack Testing:

Pollutant – Particulate Matter (PM) Required for either Emission Point 186.0 or 187.0
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM_{10} Required for either Emission Point 186.0 or 187.0
Stack Test to be Completed by (date) – September 8, 2005
Test Method – 40 CFR 51, Appendix M, 202[(1)]
Authority for Requirement - 567 IAC 22.108(3)
[(1)]Or approved alternative.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

No. 6 Maltrin® Spray Dryer Scrubbers Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	3116.0 and 3116.1 No. 6 Maltrin® Spray Dryer-Maltodextrin and Natural Gas Combustion
Emission Points:	186.0 and 187.0
Control Equipment:	Packed Column Scrubbers

Introduction

Grain Processing Corporation, Muscatine Plant, has two packed column scrubbers used for particulate emission reduction from No. 6 Maltrin® Dryer in the Maltodextrin Process area. These scrubbers operate in a parallel configuration and are used to control the exhaust of one natural gas fired spray dryer.

Monitoring/Operation

The dryer operator monitors and records on a daily datasheet the makeup water flows to both scrubber water tanks. Other parameters that are also monitored or controlled on ProVox for these two scrubbers include:

- Differential pressure across the scrubbers
- Header pressure for water to the scrubber is not measured and displayed on ProVox, but there is an interlock such that if the scrubber water header pressure is too low, the burner will kick out on the dryer and shut down the dryer.
- Scrubber system water makeup is done via a discrete hi/lo level system on each scrubber water recirculation tank.

HTH is added daily to the scrubber water to minimize/eliminate biological fouling of the packing in the scrubbers.

Maintenance / Preventative Maintenance

Monthly:
On line time between cleanings is monitored for each scrubber. After approximately every 4320 hours of operating time, the scrubbers are inspected and packing is cleaned and replaced as needed. Cleanings and schedule is maintained on a "Spray Drier Scrubber Packing Cleaning Schedule" worksheet. If other maintenance is scheduled for a dryer and the time since the last cleaning is approaching 4320 hours, the packing may be cleaned early to minimize shutdowns.

Annually:
Motor lubrication on key scrubber support pumps is scheduled on an annual basis and is triggered through the MARCAM maintenance management system. Units affected by the schedule include:
R4111 – No. 6 Spray Drier East C.I.P. Pump

R4112 – No. 6 Spray Drier West C.I.P. Pump
R4114 – No. 6 Drier West Scrubber Recirc. Pump
R4115 – No. 6 Drier East Scrubber Recirc. Pump

Annual pump inspections take place on R4111, R4112, R4114 and R4115. Included in this inspection is:

Check pump for water, oil, or product leaks
Check packing, mechanical seal and gland water lines
Drain oil
Check adapter and hold down bolts for tightness
Replace drain plug, refill oil
Check coupling for wear, alignment. Repair or replace as needed.

Emission Point ID Numbers: See Table: Maltodextrin Conveying

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Maltodextrin Conveying
Emissions Control Equipment ID Numbers: See Table: Maltodextrin Conveying
Emissions Control Equipment Description: See Table: Maltodextrin Conveying

---

Applicable Requirements

Table: Maltodextrin Conveying

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
67.0	3102.0	Pneumatic Conveying of Maltodextrin	3102-1	Baghouse	Maltodextrin	10.5
68.0	3103.0	Pneumatic Conveying of Maltodextrin	3103-1	Baghouse	Maltodextrin	10.5

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Dryer House 3 Primary Dryer

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer House 3 Primary Dryer
Emissions Control Equipment ID Numbers: See Table: Dryer House 3 Primary Dryer
Emissions Control Equipment Description: See Table: Dryer House 3 Primary Dryer

---

Applicable Requirements

Table: Dryer House 3 Primary Dryer

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity
79.0	1224.0	Dryer House 3 Primary Dryer-Corn Hulls	1224-1	Cyclone	Corn Hulls	7.0 TPH
80.0			1224-2	Cyclone		
81.0	1224.1	Dryer House 3 Primary Dryer-Natural Gas Combustion	1224-3	Cyclone	Natural Gas	16.0 MMBtu/hr
82.0			1224-4	Cyclone		

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Table: Dryer House 3 Primary Dryer –Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit (gr./scf)	SO_2 Limit (ppmv)	Construction Permit Number
79.0	1224.0	40%	0.1	500	73-A-137
80.0		40%	0.1	500	73-A-138
81.0	1224.1	40%	0.1	500	73-A-139
82.0		40%	0.1	500	73-A-140

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 3 Primary Dryer-Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 3 Primary Dryer-Emission Limits
567 IAC 23.4(7)

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM) Required for Emission Point 79 only
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ (For all Emission Points)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 85.0

Associated Equipment

Associated Emission Unit ID Numbers: 1225.0
Emissions Control Equipment ID Number: 1225-1
Emissions Control Equipment Description: High Efficiency Cyclone

---

Applicable Requirements

Emission Unit vented through this Emission Point: 1225.0
Emission Unit Description: Dryer House 2 Mill Aerodyne
Raw Material/Fuel: Distillers Dark Grains
Rated Capacity: 7.2 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permit 73-A-135
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 73-A-135
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

DH2 No. 2 Mill Aerodyne Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Unit:	1225.0 DH2 No. 2 Mill Aerodyne
Emission Point:	85.0
Control Equipment:	Aerodyne

Introduction

Grain Processing Corporation, Muscatine Plant, has one Aerodyne high efficiency cyclone used for particulate control on the exhaust of No. 2 Mill system.

Maintenance / Preventative Maintenance

Daily:
During normal daily visible emission checks on the aerodyne, the operator will observe the general exterior condition of the aerodyne, fans, airlocks and ductwork. Only if there is a problem will the operator make a note in the daily shift log.

Bi-Monthly:
On a bi-monthly basis, the aerodyne fan bearings are lubricated. This maintenance is triggered through the MARCAM maintenance management system. Affected units include:
R3060 No. 2 Mill Product Fan
R3053 No. 2 Mill Secondary Fan

Semi-Annually:
Aerodyne fan motors are lubricated on a semi-annual basis. This maintenance is triggered through the MARCAM maintenance management system.

Annually:
Aerodyne primary and secondary fans undergo an annual inspection and lubrication. This includes units R3060 and R3053. Operations will conduct an annual inspection of the aerodyne and discharge airlocks.
The annual inspection checklists will contain the following components:

Date of inspection

Inspect the spinner vanes for wear, breakage or buildup
Inspect internal surfaces for wear
Inspect upper outside air plenum for buildup of material
Check trumpets for buildup and plugging
Inspect and replace door gaskets as needed
Inspect discharge hopper for buildup or damage

Discharge Air Lock Maintenance:

- Rotor Clearances
- Seals
- Purge Air (if applicable)
- Bearings
- Motor – lubrication, visible inspection, cooling fan/shroud condition
- Gear – lubrication, visible inspection
- Inspect airlock discharge ductwork for buildup

Inspection of fans (if applicable)

- Excessive vibration check
- Check for and remove build up on fan rotor
- Fan bearing lubrication check
- Motor – visible inspection – fan, shroud
- Belts – signs of wear, tension?

Inspection of fan/aerodyne/stack ductwork

- Signs of wear or product buildup
- Inspect transition boots for wear and leakage – replace or repair as needed

Emission Point ID Number: 95.0

Associated Equipment

Associated Emission Unit ID Number: 2416.0
Emissions Control Equipment ID Number: 2416-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2416.0
Emission Unit Description: Track 3 South Starch Bulk Loading
Raw Material/Fuel: Corn Starch
Rated Capacity: 25.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 75-A-246-S1

Pollutant: Particulate Matter
Emission Limit(s): 0.75 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 75-A-246-S1

Pollutant: PM-10
Emission Limit(s): 0.75 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 75-A-246-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Work practice standards: This unit shall be operated and maintained per the manufacturers recommendations.

Reporting & Record keeping: A copy of the manufacturers recommended operation and maintenance schedules should be kept available for inspection. A log of all maintenance performed on the baghouse must be kept as well for a period of not less than five years.

Authority for Requirement: Iowa DNR Construction Permit 75-A-246-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 50
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (scfm): 6,000
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 75-A-246-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

The following opacity check is only required during periods of operation and is only required a maximum of once per calendar week.

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 98.0

Associated Equipment

Associated Emission Unit ID Numbers: 2805.0
Emissions Control Equipment ID Number: 2805-1
Emissions Control Equipment Description: Cyclone

Applicable Requirements

Emission Unit vented through this Emission Point: 2805.0
Emission Unit Description: Pneumatic Conveying of Dry Germ
Raw Material/Fuel: Dry Germ
Rated Capacity: 13.3 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 74-A-016

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 74-A-016
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 99.0

Associated Equipment

Associated Emission Unit ID Number: See Table: West Cyclone Expellers
Emissions Control Equipment ID Numbers: See Table: West Cyclone Expellers
Emissions Control Equipment Description: See Table: West Cyclone Expellers

---

Applicable Requirements

Table: No. 1 West Cyclone Expellers

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
2876.0	No. 1 Expeller	2806-1	Cyclone	Corn	0.95
2877.0	No. 2 Expeller				0.95
2878.0	No. 3 Expeller				0.95
2879.0	No. 4 Expeller				0.95
2880.0	No. 5 Expeller				0.95
2881.0	No. 6 Expeller				0.95
2888.0	No. 13 Expeller				0.95
2890.0	No. 15 Expeller				0.95

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 76-A-091
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a

continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Expelled Oil Area Spent Germ Cyclones Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	2876.0 - 2881.0, 2888.0, and 2889.0, Expeller Spent Germ Receiving Cyclone No.1 and 2882.0 - 2887.0, 2889.0, 2892.0, and 2893.0 Expeller Spent Germ Receiving Cyclone No. 2
Emission Points:	99.0, 148.0
Control Equipment:	Cyclones

Introduction
Grain Processing Corporation, Muscatine Plant, has two groups of oil expellers for separation of oil from dried germ. Spent germ is pneumatically conveyed to two receiving cyclones before being processed into animal feed. These cyclones are used for particulate emission reduction for these two pneumatic conveying systems.

Maintenance / Preventative Maintenance

Daily:
During normal daily equipment walk-throughs, the operator will observe the general exterior condition of the cyclones, fans and ductwork. Only if there is a problem will the operator make a note in the daily shift log.

Every eight weeks:
Fans are monitored for vibration every eight weeks. Maintenance schedule is triggered via the MARCAM maintenance management system. Affected fans include:
R640 – West Spent Germ Fan
R641 – East Spent Germ Fan

Annually:
Cyclones and support equipment will undergo an annual inspection. Inspections triggered by MARCAM and included in this inspection will be:

Cyclones:
Inspect housing and duct surfaces for wear or buildup
Inspect discharge cone for buildup or wear – clean as needed
Inspect transition to airlock

Fans:
Inspect and clean housings and wheels, inspect for excessive wear
Lubrication
Check for excessive vibration
Check belts, sheaves

Air Locks:
Inspect for bridging
Inspect for excessive vane tip wear
Lubrication

Emission Point ID Number: 148.0

Associated Equipment

Associated Emission Unit ID Number: See Table: No. 2 East Cyclone Expellers
Emissions Control Equipment ID Numbers: See Table: No. 2 East Cyclone Expellers
Emissions Control Equipment Description: See Table: No.2 East Cyclone Expellers

---

Applicable Requirements

Table: No. 2 East Cyclone Expellers

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
2882.0	No. 7 Expeller	2873-1	Cyclone	Corn	0.978
2883.0	No. 8 Expeller				0.978
2884.0	No. 9 Expeller				0.978
2885.0	No. 10 Expeller				0.978
2886.0	No. 11 Expeller				0.978
2887.0	No. 12 Expeller				0.978
2889.0	No. 14 Expeller				0.978
2892.0	No. 16 Expeller				0.978
2893.0	No. 17 Expeller				0.978

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.078 gr./ scf
Authority for Requirement: Iowa DNR Construction Permit 85-A-044

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Combined Agency Operation & Maintenance Plan for Cyclone Expellers on pages 108-109.

Emission Point ID Number: See Table: Dryer House 4 Rotary Steam Tube Dryers

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer House 4 Rotary Steam Tube Dryers
Emissions Control Equipment ID Number: See Table: Dryer House 4 Rotary Steam Tube Dryers
Emissions Control Equipment Description: See Table: Dryer House 4 Rotary Steam Tube Dryers

---

Applicable Requirements

Table: Dryer House 4 Rotary Steam Tube Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
108.1	1228.0	No. 1 Rotary Steam Tube Dryer	1228-1	Expansion Chamber	Wet Corn Hulls & Syrup	4.8
108.2	1229.0	No. 2 Rotary Steam Tube Dryer	1229-1	Expansion Chamber	Wet Corn Hulls & Syrup	4.8
108.3	1230.0	No. 3 Rotary Steam Tube Dryer	1230-1	Expansion Chamber	Wet Corn Hulls & Syrup	4.8
125.0	1235.0	No. 4 Rotary Steam Tube Dryer	1235-1	Expansion Chamber	Wet Corn Hulls & Syrup	4.8
127.0	1236.0	No. 5 Rotary Steam Tube Dryer	1236-1	Expansion Chamber	Wet Corn Hulls & Syrup	4.8
137.0	1238.0	No. 6 Rotary Steam Tube Dryer	1238-1	Expansion Chamber	Animal Feed	7.2
164.0	1241.0	No. 7 Rotary Steam Tube Dryer	1241-1	Expansion Chamber	Distiller's Dark Grains	15.63

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

Table: Dryer House 4 Rotary Steam Tube Dryers-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit		Construction Permit Number
			gr./scf	lb./hr	
108.1	1228.0	40%	0.1	N/A	75-A-210
108.2	1229.0	40%	0.1	N/A	75-A-211
108.3	1230.0	40%	0.1	N/A	75-A-212
125.0	1235.0	40%	0.1	N/A	79-A-196
127.0	1236.0	40%	0.1	1.41	80-A-112
137.0	1238.0	40%	0.1	N/A	85-A-033
164.0	1241.0	40%	0.038	1.6	90-A-264

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits 75-A-210 through 75-A-212
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): See Table: Dryer House 4-Rotary Steam Tube Dryers
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Rotary Steam Tube Dryers
567 IAC 23.4(7) (Emission Units 1228.0, 1229.0, 1230.0, 1235.0, 1236.0, and 1238.0

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: Required for Emission Point 137.0 only.
Pollutant – Particulate Matter (PM)
1st Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Dryer House 4-Mill & Product Aerodynes 1-3

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer House 4-Mill & Product Aerodynes 1-3
Emissions Control Equipment ID Number: See Table: Dryer House-4 Mill & Product Aerodynes 1-3
Emissions Control Equipment Description: See Table: Dryer House-4 Mill & Product Aerodynes 1-3

Applicable Requirements

Table: Dryer House 4- Mill & Product Aerodynes 1-3

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
110.0	1231.0	No. 1 Mill Feed Aerodyne	1231-1	High Efficiency Cyclone	Dry Animal Feed	7.2
113.0		No. 1 Mill Product Baghouse	1231-2	Baghouse		
111.0	1232.0	No. 2 Mill Feed Aerodyne	1232-1	High Efficiency Cyclone	Dry Animal Feed	7.2
114.0		No. 2 Mill Product Aerodyne	1232-2	High Efficiency Cyclone		
112.0	1233.0	No. 3 Mill Feed Aerodyne	1233-1	High Efficiency Cyclone	Dry Animal Feed	4.8
115.0		No. 3 Mill Product Aerodyne	1233-2	High Efficiency Cyclone		

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below

Table: Dryer House 4 Mill & Product Aerodynes 1-3-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit		PM_{10} Limit (lb./hr)	Construction Permit Number
			gr./scf	lb./hr		
110.0	1231.0	40%[(1)]	0.1[(2)]	2.37[(3)]	1.61	75-A-343-S1
113.0		40%[(1)]	0.1[(2)]	1.31[(3)]	0.88	75-A-346-S1
111.0	1232.0	40%	0.1	N/A	N/A	75-A-344
114.0		40%	0.1	N/A	N/A	75-A-347
112.0	1233.0	40%	0.1	N/A	N/A	75-A-345
115.0		40%	0.1	N/A	N/A	75-A-348

[(1)]Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make

corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(2)gr./dscf.
(3)Standard is expressed as the average of 3 runs.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes 1-3-Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes Aerodynes 1-3-Emission Limits
567 IAC 23.4(7)

Pollutant: Particulate Matter (PM)
Emission Limit(s): See Table: Dryer House 4 Mill & Product Aerodynes 1-3 – Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes Aerodynes 1-3-Emission Limits

Pollutant: PM_{10}
Emission Limit(s): See Table: Dryer House 4 Mill & Product Aerodynes 1-3 – Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes Aerodynes 1-3-Emission Limits

Emission Point Characteristics
Emission Point 110.0 shall conform to the specifications listed below.

Stack Height (feet): 70
Stack Diameter (inches): 30
Stack Exhaust Flow Rate (scfm): 22,700
Stack Temperature (^{o}F): 130
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 75-A-343-S1

Emission Point 113.0 shall conform to the specifications listed below.

Stack Height (feet): 40
Stack Diameter (inches): 32 x 10
Stack Exhaust Flow Rate (scfm): 12,500
Stack Temperature (^{o}F): 105
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 75-A-346-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity Required Emission Point 113.0 only.
Stack Test to be Completed by (date) – October 11, 2003
Test Method – 40 CFR 60, Appendix A, Method 9
Test run time to be 1 hour.
Authority for Requirement - Iowa DNR Construction Permit 75-A-346-S1

Pollutant – PM Required for Emission Point 113.0 only(1)
Stack Test to be Completed by (date) – October 11, 2003
Test Method – Iowa Compliance Sampling Manual, Method 5
Test run time to be 2 hours
Authority for Requirement: Iowa DNR Construction Permit 75-A-346-S1

Pollutant – PM_{10} Required for Emission Point 113.0 only(1)
Stack Test to be Completed by (date) – October 11, 2003
Test Method – 40 CFR 51, Appendix M, 201A with 202(2)
Test run time to be 4 hours.
If one point shows compliance with the emission limits the test for the other point may be waived by the Department.
Authority for Requirement: Iowa DNR Construction Permit 75-A-346-S1
(2)Or approved alternative.

(1) This test may be waived by the Department if Dryer House 4: #4 Mill (EP 129.0, permit number 80-A-114-S1) demonstrates compliance with the emission standard.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in

the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Dryer House 4 Mill & Product Aerodynes 4-6

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Dryer House 4 Mill & Product Aerodynes 4-6

Emissions Control Equipment ID Number: See Table: Dryer House 4 Mill & Product Aerodynes 4-6

Emissions Control Equipment Description: See Table: Dryer House 4 Mill & Product Aerodynes 4-6

Applicable Requirements

Table: Dryer House 4 Mill & Product Aerodynes 4-6

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
128.0	1237.0	No. 4 Mill Feed Aerodyne	1237-1	High Efficiency Cyclone	Dry Animal Feed	7.2
129.0		No. 4 Mill Product Baghouse	1237-2	Baghouse		
138.0	1239.0	No. 5 Mill Feed Aerodyne	1239-1	High Efficiency Cyclone	Dry Animal Feed	7.2
140.0		No. 5 Mill Product Aerodyne	1239-2	High Efficiency Cyclone		
139.0	1240.0	No. 6 Mill Feed Aerodyne	1240-1	High Efficiency Cyclone	Dry Animal Feed	7.2
141.0		No. 6 Mill Product Aerodyne	1240-2	High Efficiency Cyclone		

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below

Table: Dryer House 4 Mill & Product Aerodynes 4-6-Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit		PM_{10} Limit (lb./hr)	Construction Permit Number
			gr./scf	lb./hr		
128.0	1237.0	40%(1)	0.1(3)	2.37(4)	1.61	80-A-113-S1
129.0		40%(1)	0.1(3)	1.31(4)	0.88	80-A-114-S1
138.0	1239.0	40%	0.016	N/A	N/A	85-A-034
140.0		40%	0.046	N/A	N/A	85-A-036
139.0	1240.0	40%(2)	0.1(3)	5.57	N/A	85-A-035-S1
141.0		40%	0.046	N/A	N/A	85-A-037

(1)Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
(2) If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard.
(3) gr./dscf
(4) Standard is expressed as the average of 3 runs.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permits 80-A-113-S1, 80-A-114-S1, and 85-A-035-S1
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): See Table: Dryer House 4 Mill & Product Aerodynes 4-6-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes 4-6-Emission Limits

Pollutant: PM_{10}
Emission Limit(s): See Table: Dryer House 4 Mill & Product Aerodynes 4-6-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Dryer House 4 Mill & Product Aerodynes 4-6-Emission Limits

Emission Point Characteristics
Emission point 139.0 shall conform to the specifications listed below.

Stack Height (feet): 60
Stack Diameter (inches): 32
Stack Exhaust Flow Rate (scfm): 23,800
Stack Temperature (^{o}F): 125
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 85-A-035-S1

Emission point 128.0 shall conform to the specifications listed below

Stack Height (feet): 70
Stack Diameter (inches): 30
Stack Exhaust Flow Rate (scfm): 22,700
Stack Temperature (^{o}F): 130
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 80-A-113-S1

Emission point 129.0 shall conform to the specifications listed below

Stack Height (feet): 40
Stack Diameter (inches): 32 x 10
Stack Exhaust Flow Rate (scfm): 12,500
Stack Temperature (^{o}F): 105
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 80-A-114-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Opacity Required for Emission Point 129.0 only.
Stack Test to be Completed by (date) – October 11, 2003
Test Method – 40 CFR 60, Appendix A, Method 9
Test run time to be 1 hour.
Authority for Requirement - Iowa DNR Construction Permit 75-A-346-S1

Pollutant – PM Required for Emission Point 129.0 only(1)
Stack Test to be Completed by (date) – October 11, 2003
Test Method – Iowa Compliance Sampling Manual, Method 5
Test run time to be 2 hours
Authority for Requirement: Iowa DNR Construction Permit 75-A-346-S1

Pollutant – PM_{10} Required for Emission Point 129.0 only(1)
Stack Test to be Completed by (date) – October 11, 2003
Test Method – 40 CFR 51, Appendix M, 201A with 202(2)
Test run time to be 4 hours.
If one point shows compliance with the emission limits the
test for the other point may be waived by the Department.
Authority for Requirement: Iowa DNR Construction Permit 75-A-346-S1
(2)Or approved alternative.

(1) This test may be waived by the Department if Dryer House 4: #1 Mill (EP 113.0, permit number 75-A-346-S1) demonstrates compliance with the emission standard.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 119.0

Associated Equipment

Associated Emission Unit ID Numbers: 1234.0
Emissions Control Equipment ID Number: 1234-1
Emissions Control Equipment Description: Cyclone

Applicable Requirements

Emission Unit vented through this Emission Point: 1234.0
Emission Unit Description: Dryer House Warehouse-No. 1 Product Cooler
Raw Material/Fuel: Dry Feed
Rated Capacity: 25 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 122.0

Associated Equipment

Associated Emission Unit ID Numbers: 2435.0
Emissions Control Equipment ID Number: 2435-1
Emissions Control Equipment Description: Fabric Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 2435.0
Emission Unit Description: Pearl Starch Storage Bin
Raw Material/Fuel: Pearl Starch
Rated Capacity: 31.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 76-A-262-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.25 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 76-A-262-S1

Pollutant: PM-10
Emission Limit(s): 1.25 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 76-A-262-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Work practice standards:
1. This unit shall be operated and maintained per the manufacturers recommendations.

Reporting & Record keeping:
The following records shall be kept onsite to show compliance with this permit. Records shall be maintained for five (5) years.

1. A copy of the manufacturers recommended operation and maintenance schedules should be kept available for inspection. A log of all maintenance performed on the baghouse must be kept as well.

Authority for Requirement: Iowa DNR Construction Permit 76-A-262-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 50
Stack Diameter (inches): 18
Stack Exhaust Flow Rate (cfm): 4,200
Stack Temperature (^{o}F): 90
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 76-A-262-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

The following opacity check is only required during periods of operation and is only required a maximum of once per calendar week.

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If

all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 130.0

Associated Equipment

Associated Emission Unit ID Numbers: 2434.0
Emissions Control Equipment ID Number: 2434-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2434.0
Emission Unit Description: Industrial Starch Bagger
Raw Material/Fuel: Corn Starch
Rated Capacity: 36 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 02-A-760
567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): 0.36 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-760

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 83
Stack Diameter (inches): 12x17
Stack Exhaust Flow Rate (scfm): 2,500
Stack Temperature (^{o}F): 80
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 02-A-760

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the

emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 133.0

Associated Equipment

Associated Emission Unit ID Numbers: 3501.0
Emissions Control Equipment ID Number: 3501-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 3501.0
Emission Unit Description: Co-Polymer Disk Drier
Raw Material/Fuel: Polymerized Starch
Rated Capacity: 0.325 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: 567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 134.0

Associated Equipment

Associated Emission Unit ID Numbers: 3502.0
Emissions Control Equipment ID Number: 3502-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 3502.0
Emission Unit Description: Pneumatic Conveying of Polymerized Starch (CoPo Product Transfer)
Raw Material/Fuel: Polymerized Starch
Rated Capacity: 0.32 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 83-A-082
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Starch Flash Dryers

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Starch Flash Dryers
Emissions Control Equipment ID Number: See Table: Starch Flash Dryers
Control Equipment Description: See Table: Starch Flash Dryers

---

Applicable Requirements

Table: Starch Flash Dryers

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
143.0	2431.0	Starch Flash Dryer No. 1	Cornstarch	2431-1	Impingement Scrubber	11.35
158.0	2424.0	Starch Flash Dryer No. 2	Cornstarch	2424-1	Impingement Scrubber	15.6

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Table: Starch Flash Dryers –Emission Limits

Emission Point Number	Associated Emission Unit Number	Opacity Limit	PM Limit	Construction Permit Number
143.0	2431.0	40%	0.1 gr./scf	73-A-215
158.0	2424.0	40%	0.05 gr./scf	85-A-039

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): See Table: Starch Flash Dryers-Emission Limits
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Flash Dryers-Emission Limits

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing: Required for either Emission Point 143.0 or 158.0

Pollutant – Particulate Matter (PM)
1st Stack Test to be Completed by (date) – September 8, 2004
2nd Stack Test to be Completed between (dates) –March 8, 2006 and March 8, 2007
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Starch Flash Dryer Scrubber Agency Operation & Maintenance Plan

Facility:	Grain Processing Corporation
EIQ Number:	92-2259
Emission Units:	2431.0 and 2424.0 Starch No. 1 and 2 Flash Dryer Scrubbers
Emission Point:	143.0 and 158.0
Control Equipment:	2431-1 and 2424-1 Impingement Scrubbers

Introduction

Grain Processing Corporation, Muscatine Plant, has two impingement scrubbers used for particulate emission reduction in the Starch Process area. These scrubbers are used to control the exhaust of two steam-driven flash dryers.

Monitoring/Operation

No. 1 Flash Dryer Scrubber:

The No. 1 Flash Dryer Scrubber tank level is controlled automatically with water coming into the tank off of level control to offset water leaving the system through scrubber evaporation and

water/slurry lost via blowdown. The scrubber recirculation loop has a blowdown flow controller that typically purges about 15 gpm of water/slurry from the system. Recirculation rate through the scrubber is controlled only by manual positioning of a valve feeding the scrubber. This valve position is adjusted to give about 45 psi pressure in the header feeding the scrubber. The pressure readout, scrubber tank level controller, and blowdown controller are on the No. 1 Flash Dryer panel board.

No. 2 Flash Dryer Scrubber:

The No. 2 Flash Dryer Scrubber system is analogous to No. 1 with the exception that the recirculation flow through the scrubber is controlled with a flow controller to a set point of approximately 900 gpm. Make up and purge schemes are similar to No. 1 Flash Dryer. All No. 2 controls are on a PLC interface for Flash Dryer No. 2.

Maintenance / Preventative Maintenance

Daily:
During normal daily equipment walk-through, the operator will observe the general exterior condition of the scrubbers, fans, pumps, piping and ductwork. Only if there is a problem will the operator make a note in the daily shift log.

Semi-Annually:
The No. 2 Flash Dryer Scrubber Pump motors are set up for motor lubrication on six month intervals. Affected units are:
R1284 – No. 2 Scrubber Recirculating Pump North
R1285 – No. 2 Scrubber Recirculating Pump South

Two inspections are conducted each year on the Dryer/Scrubber Fire Suppression Systems.

Annually:
Both scrubbers will undergo annual inspectionsl. These inspections will be initiated automatically by using the MARCAM maintenance system. Both operations and maintenance personnel will conduct inspections.

The annual inspection checklists will contain the following components:

Date of inspection

Scrubber:
Visible inspection of scrubber housing
Inspect internal surfaces for wear or buildup
Inspect spray nozzles
Inspect for structural damage or problems with vanes
Inspect and clean entrainment eliminators

Ductwork:
Inspect for wear or buildup

Scrubber Recirculation Pumps:
Check pump for water, oil, or product leaks
Check packing, mechanical seal and gland water lines
Drain oil
Check adapter and hold down bolts for tightness
Replace drain plug, refill with Chevron TEGRA synthetic compressor oil 68 oil
Check coupling

> *Woods*: Check element for cracks and wear in tooth area. Check alignment
> *Falk*: Remove covers. Inspect grid and hubs for wear. Check alignment. Check cover seals for wear or looseness. Repack with coupling grease. Install cover gaskets and covers.

Affected pumps are:
R1409 – No. 1 Scrubber East Recirculating Pump
R1410 – No. 1 Scrubber West Recircirculating Pump
R1284 – No. 2 Scrubber Recirculating Pump North
R1285 – No. 2 Scrubber Recirculating Pump South

Emission Point ID Number: 144.0

Associated Equipment

Associated Emission Unit ID Numbers: 2436.0
Emissions Control Equipment ID Number: 2436-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2436.0
Emission Unit Description: Cornstarch Packaging (Food Grade Packer/Supersacker)
Raw Material/Fuel: Cornstarch
Rated Capacity: 15 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf and 1.2 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-307

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 145.0

Associated Equipment

Associated Emission Unit ID Numbers: 2418.0
Emissions Control Equipment ID Number: 2418-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2418.0
Emission Unit Description: Cornstarch Bulk Loading (Food Grade)
Raw Material/Fuel: Cornstarch
Rated Capacity: 11.35 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 85-A-041

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 147.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Corn Cleaner
Emissions Control Equipment ID Number: See Table: Corn Cleaner
Emissions Control Equipment Description: See Table: Corn Cleaner

---

Applicable Requirements

Table: Corn Cleaner

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
2808.0	Wet Mill: No. 1 Corn Cleaner	2808-1	Baghouse	Corn	204
2808.1	Wet Mill: No. 2 Corn Cleaner			Corn	204
2808.2	Wet Mill: No. 3 Corn Cleaner			Corn	204
2808.3	Wet Mill: No. 4 Corn Cleaner			Corn	204

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 85-A-043

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Starch Silos 1-4

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Starch Silos 1-4
Emissions Control Equipment ID Numbers: See Table: Starch Silos 1-4
Emissions Control Equipment Description: See Table: Starch Silos 1-4

Applicable Requirements

Table: Starch Silos 1-4

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
149.0	2419.0	Starch Silo No. 1 (N)	2419-1	Baghouse	Cornstarch	11.4
150.0	2420.0	Starch Silo No. 2 (E)	2420-1	Baghouse	Cornstarch	11.4
151.0	2421.0	Starch Silo No. 3 (S)	2421-1	Baghouse	Cornstarch	11.4
152.0	2422.0	Starch Silo No. 4 (W)	2422-1	Baghouse	Cornstarch	11.4

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Table: Starch Silos 1-4 Emission Limits

Emission Point Number	Emission Unit Number	Opacity Limit	PM Limit (gr./dscf)	PM_{10} Limit (lb./hr)[2]	Construction Permit Number
149.0	2419.0	No Visible Emissions[1]	0.1	0.2	85-A-081-S1
150.0	2420.0	No Visible Emissions[1]	0.1	0.2	85-A-082-S1
151.0	2421.0	No Visible Emissions[1]	0.1	0.2	85-A-083-S1
152.0	2422.0	No Visible Emissions[1]	0.1	0.2	85-A-084-S1

[1]If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard.
[2]Standard is expressed as the average of 3 runs.

Pollutant: Opacity
Emission Limit(s): No Visible Emissions
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos 1-4- Emission Limits
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos 1-4- Emission Limits

Pollutant: PM_{10}
Emission Limit(s): 0.2 lb./hr
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos
1-4- Emission Limits

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (feet): 118
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (scfm): 1,200
Stack Temperature (^{o}F): 100
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos
1-4- Emission Limits

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Starch Silos 5-10

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Starch Silos 5-10
Emissions Control Equipment ID Numbers: See Table: Starch Silos 5-10
Emissions Control Equipment Description: See Table: Starch Silos 5-10

Applicable Requirements

Table: Starch Silos 5-10

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/ Fuel	Rated Capacity (tons/hr)
159.0	2425.0	Starch Silo No.5 (N)	2425-1	Baghouse	Cornstarch	15.63
160.0	2426.0	Starch Silo No. 6 (E)	2426-1	Baghouse	Cornstarch	15.63
161.0	2427.0	Starch Silo No. 7 (S)	2427-1	Baghouse	Cornstarch	15.63
162.0	2428.0	Starch Silo No. 8 (W)	2428-1	Baghouse	Cornstarch	15.63
171.0	2429.0	Starch Silo No. 9 (NE)	2429-1	Baghouse	Cornstarch	15.63
172.0	2430.0	Starch Silo No. 10 (NW)	2430-1	Baghouse	Cornstarch	15.63

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Table: Starch Silos 5-10-Emission Limits

Emission Point Number	Emission Unit Number	Opacity Limit	PM Limit	Construction Permit Number
159.0	2425.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-259
160.0	2426.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-260
161.0	2427.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-261
162.0	2428.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-262
171.0	2429.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-359
172.0	2430.0	40%	0.0217 gr./scf and 0.28 lb./hr	90-A-360

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.0217 gr./scf and 0.28 lb./hr
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos 5-10-Emission Limits

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

1. Only one (1) of the six (6) filter-type vents of permits 90-A-259 through 90-A-262 and 90-A-359 and 90-A-360 shall be operated at any time.

Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos No. 5-10-Emission Limits

Emission Point Characteristics

These emission points shall conform to the specifications listed below.

Stack Height (feet): N/A
Stack Diameter (inches): N/A
Stack Exhaust Flow Rate (scfm): 1,486
Stack Temperature (^{o}F): 70
Air Pressure: 29.92 inches of mercury.
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Starch Silos 5-10-Emission Limits

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Maltrin® Agglomerator

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Maltrin® Agglomerator
Emissions Control Equipment ID Numbers: See Table: Maltrin® Agglomerator
Emissions Control Equipment Description: See Table: Maltrin® Agglomerator

---

Applicable Requirements

Table: Maltrin® Agglomerator

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
154.0	3105.0	Maltrin® Agglomerator No. 1	3105-1	Baghouse	Maltodextrin	0.45
156.0	3106.0	Maltrin® Agglomerator No. 2	3106-1	Baghouse	Maltodextrin	0.45

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1gr./scf
Authority for Requirement: Iowa DNR Construction Permit 89-A-084 (3105.0) and 89-A-146 (3106.0)
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 155.0

Associated Equipment

Associated Emission Unit ID Numbers: 2423.0
Emissions Control Equipment ID Number: 2423-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2423.0
Emission Unit Description: Starch Sacker
Raw Material/Fuel: Corn Starch
Rated Capacity: 45.0 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1gr./scf
Authority for Requirement: Iowa DNR Construction Permit 89-A-085
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 157.0

Associated Equipment

Associated Emission Unit ID Numbers: 3107A
Emissions Control Equipment ID Number: 3107A-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 3107A
Emission Unit Description: Maltodextrin Bagger
Raw Material/Fuel: Maltodextrin
Rated Capacity: 60.0 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: Iowa DNR Construction Permit 89-A-162-S
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 89-A-162-S
567 IAC 23.4(7)

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 163.0

Associated Equipment

Associated Emission Unit ID Numbers: 2432.0
Emissions Control Equipment ID Number: 2432-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2432.0
Emission Unit Description: Starch Track 3A Bulk Loading
Raw Material/Fuel: Starch
Rated Capacity: 15.63 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.84 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-263

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 167.0

Associated Equipment

Associated Emission Unit ID Numbers: 1242.0
Emissions Control Equipment ID Number: 1242-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 1242.0
Emission Unit Description: Dryer House Warehouse-No. 2 Feed Cooler
Raw Material/Fuel: Animal Feed
Rated Capacity: 25 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf and 1.2 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 90-A-111

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter (PM)
Stack Test to be Completed by (date) – September 8, 2005
Test Method - Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 175.0

Associated Equipment

Associated Emission Unit ID Numbers: 3108.0
Emissions Control Equipment ID Number: 3108-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 3108.0
Emission Unit Description: Maltrin® Product Silo Receiver
Raw Material/Fuel: Maltodextrin
Rated Capacity: 11.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.0 lb./hr and 4.38 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-069

Pollutant: PM_{10}
Emission Limit(s): 0.84 lb./hr and 3.6 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-069

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 176.0

Associated Equipment

Associated Emission Unit ID Numbers: 3109.0
Emissions Control Equipment ID Number: 3109-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 3108.0
Emission Unit Description: Maltrin® Nuisance Dust Collector
Raw Material/Fuel: Maltodextrin
Rated Capacity: 11.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0 .1 lb./hr and 0.44 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-070

Pollutant: PM_{10}
Emission Limit(s): 0.09 lb./hr and 0.04 TPY
Authority for Requirement: Iowa DNR Construction Permit 91-A-070

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Feed Truck Loadout

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Feed Truck Loadout
Emissions Control Equipment ID Numbers: See Table: Feed Truck Loadout
Emissions Control Equipment Description: See Table: Feed Truck Loadout

---

Applicable Requirements

Table: Feed Truck Loadout

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
179.0	1258.0	No. 1 Feed Truck Loadout	1258-1	Baghouse	Distillers Dried Grains and Glutens	126
180.0	1259.0	No. 2 Feed Truck Loadout	1259-1	Baghouse	Distillers Dried Grains and Glutens	126

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf, 1.84 lb./hr, and 8.065 TPY
Authority for Requirement: Iowa DNR Construction Permits 92-A-383 (1258.0) and
92-A-385 (1259.0)

Pollutant: PM_{10}
Emission Limit(s): 0.01 gr./scf, 1.55 lb./hr, and 6.8 TPY
Authority for Requirement: Iowa DNR Construction Permits 92-A-383 (1258.0) and
92-A-385 (1259.0)

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

Stack Height (feet): 50
Stack Diameter (feet): 2.5
Stack Exhaust Flow Rate (acfm): 21,481
Stack Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 92-A-383 (1258.0)
Iowa DNR Construction Permit 92-A-385 (1259.0)

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – Particulate Matter Required for either Emission Point 179.0 or 180.0
Stack Test to be Completed by (date) – September 8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM_{10} Required for either Emission Point 179.0 or 180.0
Stack Test to be Completed by (date) – September 8, 2005
Test Method – 40 CFR 51, Appendix M, 201A with 202[(2)]
Authority for Requirement - 567 IAC 22.108(3)
[(2)]Or approved alternative

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: South Elevator Receiving Pit and Transfer System

Associated Equipment

Associated Emission Unit ID Numbers: See Table: South Elevator Receiving Pit and Transfer System
Emissions Control Equipment ID Numbers: See Table: South Elevator Receiving Pit and Transfer System
Emissions Control Equipment Description: See Table: South Elevator Receiving Pit and Transfer System

---

Applicable Requirements

Table: South Elevator Receiving Pit and Transfer System

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
181.1	6005.0	South Elevator Rail Receiving Pit and Transfer System	6005-1	Baghouse	Distillers Dried Grains and Glutens	126
181.2	6006.0	South Elevator Truck Receiving Pit and Transfer System	6006-1	Baghouse	Distillers Dried Grains and Glutens	126

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permits 76-A-264 (6005.0) and 76-A-268 (6006.0)

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Numbers: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

Associated Equipment

Associated Emission Unit ID Number: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins
Emissions Control Equipment ID Numbers: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins
Emissions Control Equipment Description: See Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

---

Applicable Requirements

Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins

Emission Point Number	Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
182.0	3115.0	Maltrin® Filter Aid Bulk Storage Bin No. 1	3115-1	Filter-Type Bin Vent	Diatomaceous Earth	0.712
183.0	3112.0	Maltrin® Filter Aid Bulk Storage Bin No. 2	3112-1	Filter-Type Bin Vent	Diatomaceous Earth	0.712
184.0	3113.0	Maltrin® Filter Aid Bulk Storage Bin No. 3	3113-1	Filter-Type Bin Vent	Diatomaceous Earth	0.712
185.0	3114-0	Maltrin® Bulk Carbon Storage Bin No. 1	3114-1	Filter-Type Bin Vent	Carbon	0.119

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from these emission points shall not exceed the levels specified below

Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins-Emission Limits

Emission Point Number	Emission Unit Number	Opacity Limit	PM Limit			Construction Permit Number
			gr./scf	lb./hr	tons/yr	
182.0	3115.0	40%	0.03	0.30	1.31	93-A-032
183.0	3112.0	40%	0.03	0.30	1.31	93-A-033
184.0	3113.0	40%	0.03	0.30	1.31	93-A-034
185.0	3114-0	40%	0.03	0.30	1.31	93-A-035

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.03 gr./scf, 0.30 lb./hr, and 1.31 TPY
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins -Emission Limits

Emission Point Characteristics
These emission points shall conform to the specifications listed below.

The source shall be identified by permanent labels both in the plant and at the emission point on the roof.

Stack Height (feet): 50
Stack Diameter (inches): 12 X 12
Stack Exhaust Flow Rate (acfm): 1,200
Stack Temperature (^{o}F): 65
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permits specified in Table: Maltrin® Filter Aid and Carbon Bulk Storage Bins-Emission Limits

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 188.0

Associated Equipment

Associated Emission Unit ID Numbers: See Table: G-Series Starch Processing
Emissions Control Equipment ID Numbers: See Table: G-Series Starch Processing
Emissions Control Equipment Description: See Table: G-Series Starch Processing

---

Applicable Requirements

Table: G-Series Starch Processing

Emission Unit Number	Emission Unit Description	Control Equipment Number	Control Equipment Description	Raw Material/Fuel	Rated Capacity (tons/hr)
2501.0	Starch Dryer	2501-1	Baghouse	Corn Starch	7.5
2502.0	Starch Grinding and Screening	2502-1	Baghouse	Corn Starch	7.5
2503.0	Pneumatic Transport of Starch	2503-1	Baghouse	Corn Starch	7.5
2504.0	Pneumatic Transport of Starch	2504-1	Baghouse	Corn Starch	7.5
2505.0	Pneumatic Transport of Starch	2505-1	Baghouse	Corn Starch	20
2506.0	Pneumatic Transport of Starch	2506-1	Baghouse	Corn Starch	20

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 0%
Authority for Requirement: Iowa DNR Construction Permit 96-A-1028-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 8.4 lb./hr and 24.5 TPY
Authority for Requirement: Iowa DNR Construction Permit 96-A-1028-S1

Pollutant: PM_{10}
Emission Limit(s): 5.1 lb./hr and 14.5 TPY
Authority for Requirement: Iowa DNR Construction Permit 96-A-1028-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Hours of operation:

1. The operation time of this unit shall be limited to 5843 hours per twelve (12) month period.

Control equipment parameters:

1. All baghouses in this operation shall be maintained and operated per the manufacturers recommendations. This inspection procedure should include daily checks to ensure that dust is being removed from the system, weekly inspections of the cleaning system for proper functioning and cycling, monthly inspections for wear, material buildup and corrosion, and logging of broken bags by location to identify installation or operational problems.

Reporting & Record keeping:

1. An hour meter must be placed on the fans and the hours operated must be recorded at the end of each month.
2. The manufacturers recommendations for operation and maintenance of these baghouses shall be kept on hand. Also a log of maintenance work performed on these baghouses must be kept.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1028-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (feet): 140
Stack Diameter (feet): 3.5
Stack Exhaust Flow Rate (scfm): 60,000
Stack Temperature (^{o}F): 116
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
The exhaust from this stack is a combination of exhausts from multiple baghouses. Two of the baghouses filter air from the loading of the ingredients bins (2 Mikro Pulsair, Model 85-10-Fv TRH) Another two baghouses are used to filter air from the loading of product bins (2 Mikro Pulsair, Model 55-10-FV TRH). A final two baghouses are used to filter air from various pick ups from the unit (ie. Screening, the dryer, etc) (2 Dustex Model 3610-14-32).

Authority for Requirement: Iowa DNR Construction Permit 96-A-1028-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required. If an opacity (>0 %) is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Stack Testing:

Pollutant – Particulate Matter
Stack Test to be Completed by (date) – September8, 2005
Test Method – Iowa Compliance Sampling Manual Method 5
Authority for Requirement - 567 IAC 22.108(3)

Pollutant – PM_{10}
Stack Test to be Completed by (date) – September 8, 2005
Test Method – 40 CFR 51, Appendix M, 201A with 202[(1)]
Authority for Requirement - 567 IAC 22.108(3)
[(1)]Or approved alternative.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 189.0

Associated Equipment

Associated Emission Unit ID Numbers: 5215.0
Emissions Control Equipment ID Number: 5215-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 5215.0
Emission Unit Description: Lime Silo System
Raw Material/Fuel: Lime
Rated Capacity: 10 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 02-A-759
567 IAC 23.3(2)"d"

(1) If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard. This standard is in lieu of an initial compliance test for PM_{10}.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./.scf
Authority for Requirement: Iowa DNR Construction Permit 02-A-759
567 IAC 23.4(7)
Pollutant: PM_{10}
Emission Limit(s): 0.51 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-759

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 49
Stack Diameter (inches): 6 x 8
Stack Exhaust Flow Rate (scfm): 750
Stack Temperature (^{o}F): 70
Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 02-A-759

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 190A

Associated Equipment

Associated Emission Unit ID Number: 1256.0
Emissions Control Equipment ID Number: 1256-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 1256.0
Emission Unit Description: Gluten Load Out Transfer
Raw Material/Fuel: Gluten
Rated Capacity: 32.0 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-781
567 IAC 23.3(2)"d"

[(1)]Per DNR air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.22 lb./hr and 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 02-A-781
567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): 0.16 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-781

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 70
Stack Diameter (inches): 10
Stack Exhaust Flow Rate (scfm): 2,600
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-781

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 190B

Associated Equipment

Associated Emission Unit ID Number: 1257.0
Emissions Control Equipment ID Number: 1257-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 1257.0
Emission Unit Description: Gluten Truck Loadout Bin
Raw Material/Fuel: Gluten
Rated Capacity: 32.0 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No Visible Emissions[(1)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-782
567 IAC 23.3(2)"d"
[(1)]If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard. This standard is in lieu of an initial compliance test for PM_{10}.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.009 lb./hr[(2)] and 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 02-A-782
567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): 0.009 lb./hr[(2)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-782

[(2)]Standard is expressed as the average of 3 runs.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 60
Stack Diameter (inches): 5
Stack Exhaust Flow Rate (scfm): 100
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-782

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 191.0

Associated Equipment

Associated Emission Unit ID Numbers: 5220.0
Emissions Control Equipment ID Number: 5220-1
Emissions Control Equipment Description: Vent Sock

Applicable Requirements

Emission Unit vented through this Emission Point: 5220.0
Emission Unit Description: Bulk Salt Silo
Raw Material/Fuel: Salt
Rated Capacity: 22.5 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No Visible Emissions[(1)]
Authority for Requirement: Iowa DNR Construction Permit 02-A-787
567 IAC 23.3(2)"d"

[(1)] If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard. This standard is in lieu of an initial compliance test for PM_{10}.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 02-A-787
567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): 0.21 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-787

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 25
Stack Diameter (inches): 24
Stack Exhaust Flow Rate (scfm): 500
Stack Temperature (^{o}F): 80
Discharge Style: Obstructed vertical

Authority for Requirement: Iowa DNR Construction Permit 02-A-759

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity shall be observed weekly or when the unit is operating, a maximum of once per calendar week, to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Steep Tanks

Associated Equipment

Associated Emission Unit ID Number: See Table: Steep Tanks

Applicable Requirements

Table: Steep Tanks

Emission Point Numbers	Associated Emission Unit Numbers	Emission Unit Descriptions	Raw Material/Fuel	Rated Capacity (tons/hr each)
200.0-261.0	2810.0-2871.0	Steep Tanks Nos. 1 through 62	Corn	68

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 267.0

Associated Equipment

Associated Emission Unit ID Numbers: 2891.0

Applicable Requirements

Emission Unit vented through this Emission Point: 2891.0
Emission Unit Description: Mechanical Recompression Evaporator 2 -Non-Condensibles Vent
Raw Material/Fuel: Steep Water
Rated Capacity: 16,500 GPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Gluten Filters

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Gluten Filters

---

Applicable Requirements

Table: Gluten Filters

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/Fuel	Rated Capacity (tons/hr)
268.0	1250.0	Gluten Filter Hood Vent Fan No. 1	Gluten	175
269.0	1251.0	Gluten Filter Hood Vent Fan No. 2	Gluten	175
270.0	1252.0	Gluten Filter Hood Vent Fan No. 3	Gluten	175
271.0	1253.0	Gluten Filter Hood Vent Fan No. 4	Gluten	175
272.0	1254.0	Gluten Filter Hood Vent Fan No. 5	Gluten	175

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 273.0

Associated Equipment

Associated Emission Unit ID Numbers: 2433.0

Applicable Requirements

Emission Unit vented through this Emission Point: 2433.0
Emission Unit Description: Starch - Gluten Separator Area Wall Fan
Raw Material/Fuel: Starch and Gluten
Rated Capacity: 175 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 300.0

Associated Equipment

Associated Emission Unit ID Numbers: 5214.0

Applicable Requirements

Emission Unit vented through this Emission Point: 5214.0
Emission Unit Description: Coal Pile
Raw Material/Fuel: Coal
Rated Capacity: 270,000 TPY

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Fugitive Dust
Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 302.0

Associated Equipment

Associated Emission Unit ID Numbers: 1002.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1002.0
Emission Unit Description: Methanol Denaturant Tank
Raw Material/Fuel: Methanol
Rated Capacity: 12,225 gal.

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 309.0

Associated Equipment

Associated Emission Unit ID Numbers: 1065.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1065.0
Emission Unit Description: Ethanol Distillation-Fugitive Acetaldehyde Emissions
Raw Material/Fuel: Ethyl Alcohol
Rated Capacity: 19.078 Mgal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Alcohol Area Storage Tanks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Alcohol Area Storage Tanks

---

Applicable Requirements

Table: Alcohol Area Storage Tanks

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Tank Contents	Tank Size (Gal)
400.0-401.0	1005.0-1006.0	Anhydrous Alcohol Tank s Nos. 1 & 2	Ethanol	15,473
402.0	1007.0	Anhydrous Alcohol Tank No. 3	Ethanol	16,211
403.0-405.0	1008.0-1010.0	Anhydrous Alcohol Tanks Nos. 4 through 6	Ethanol	17,871
406.0	1011.0	Anhydrous Alcohol Dump Tank	Ethanol	9,792
407.0	1013.0	Anhydrous Alcohol Reject Tank	Ethanol	9,967
409.0-411.0	1014.0-1016.0	"A", "B", and "C" Scale 190 Proof Tanks	Ethanol	7,109
412.0	1017.0	190 Proof Brucine Tank	Ethanol & Brucine	839
413.0	1018.0	200 Proof Brucine Tank	Ethanol & Brucine	5,298
414.0	1019.0	Power House Heads Tank	Ethanol	875
415.0-424.0	1020.0-1029.0	"A" Tank Farm-Tanks 1A through 10A	Ethanol	10,663
425.0-434.0	1030.0-1039.0	"A" Tank Farm-Tanks 1B through 10B	Ethanol	10,663
437.0	1042.0	"A" Tank Farm-Denatured Tank No. 12	Ethanol	13,124
438.0-440.0	1043.0-1045.0	"A" Tank Farm-Tanks 1A through 3A High Wine	Ethanol	17,137
442.0	1047.0	"A" Tank Farm-No. 2 Anhydrous Alcohol Feed Tank	Ethanol	50,899
445.0-450.0	1050.0-1055.0	"B" Tank Farm-Tanks 3H through 8H	Ethanol	414,554
451.0-455.0	1056.0-1060.0	"C" Tank Farm-Tanks 1C through 5C	Ethanol	259,096
456.0	1061.0	"D" Tank Farm-Denaturant Tank 1	Isopropyl Alc.	10,897
457.0	1062.0	"D" Tank Farm-Denaturant Tank 2	Ethanol	18,612
458.0-459.0	1063.0-1064.0	"D" Tank Farm-Denaturant Tanks 13 & 14	Ethanol	30,457
475.0	1066.0	Dimethylization Feed Tank	Ethanol	51,819
476.0	1069.0	Ethyl Acetate Denaturant Tank 1	Ethyl Acetate	6,000
477.0	1070.0	Ethyl Acetate Denaturant Tank 2	Ethyl Acetate	2,400
478.0	1071.0	Unleaded Gasoline Denaturant Tank	Gasoline (RVP 8)	18,507
539.0	1097.0	Unleaded Gasoline Denaturant Tank	Gasoline (RVP 8)	7,050

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 532.0

Associated Equipment

Associated Emission Unit ID Numbers: 1048.0, 1049.0
Emissions Control Equipment ID Number: CE 1048-1
Emissions Control Equipment Description: Packed Bed Water Scrubber

---

Applicable Requirements

Emission Unit vented through this Emission Point: 1048.0
Emission Unit Description: "B" Tank Farm Ethanol Storage Tank 1H
Raw Material/Fuel: Ethanol
Rated Capacity: 430,000 gal.

Emission Unit vented through this Emission Point: 1049.0
Emission Unit Description: "B" Tank Farm Ethanol Storage Tank 2H
Raw Material/Fuel: Ethanol
Rated Capacity: 433,000 gal.

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.58 lb./hr and 2.5 TPY
Authority for Requirement: Iowa DNR Construction Permit 03-A-343-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

1. The equipment (as defined in 40 CFR §60.481) associated with this emission unit shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §40.489).
2. Per 40 CFR §60.112b each tank shall be equipped with one of the following:
   a) A fixed roof in combination with an internal floating roof meeting the specifications listed 40 CFR 60.112b(1).
   b) An external floating roof meeting the specifications listed in 40 CFR 60.112b(2).
   c) A closed vent system and control device meeting the following specifications:
      (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in Subpart VV [40 CFR §60.485(b)].

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95% or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR §60.18) of the General Provisions.

d) A system equivalent to those listed above as provided in 40 CFR §60.114b.

3. Units equipped with a closed vent system and control device as required in 40 CFR §60.112b(a)(3) or 40 CFR §60.112b(b)(2) (other than a flare) are exempt from 40 CFR §60.8 (Performance tests) of the General Provisions and shall meet the requirements of 40 CFR §60.113b(c).
4. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.
5. The facility (plant number 70-01-004) shall conduct a VOC stack test (40 CFR 60, Appendix A, Method 25A or other approved method) on the yeast tubs (EU 1096.0, EP 530.0) prior to their removal, but no later than six (6) months after the issuance of DNR Construction Permit 03-A-343-S1 to demonstrate the netting credit used for this project (project number 02-025). Note: DNR Construction Permit 03-A-343-S1 was issued on July 15, 2003.
6. The facility (plant number 70-01-004) shall remove the cyclohexane dehydration system (EU 1001.0, EP 301.0) within six (6) months of the initial startup of the new prefermenters.
7. The facility (plant number 70-01-004) shall remove the batch yeast tubs (EU 1096.0, EP 530.0) within six (6) months of the initial startup of the new prefermenters.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. Reporting and recordkeeping for NSPS Subpart Kb shall be done per 40 CFR §60.115b.
2. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR §60.486 and 40 CFR §60487.
3. For the first twelve (12) months of operation, determine the total amount of corn grind for the facility (plant number 70-01-004) for each month of operation.
4. After the first twelve (12) months of operation, determine the cumulative amount of corn grind for the facility (plant number 70-01-004) on a rolling 12-month basis for each month of operation.
5. The facility (plant number 70-01-004) shall notify Field Office 6 of the following dates:
   - When the stack testing on the yeast tubs (EU 1096.0, EP 530.0) was conducted.
   - When the cyclohexane dehydration system (EU 1001.0, EP 301.0) was removed from service.
   - When the yeast tubs (EU 1096.0, EP 530.0) were removed from service.

Authority for Requirement: Iowa DNR Construction Permit 03-A-343-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 15
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (scfm): 15
Stack Temperature (^{o}F): 80
Discharge Style: Unobstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 03-A-343-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 435.0

Associated Equipment

Associated Emission Unit ID Numbers: 1040.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1040.0
Emission Unit Description: "A" Tank Farm Mole Sieve No. 2 Low Proof Feed Tank No. 4
Raw Material/Fuel: Ethanol
Rated Capacity: 1,300 gal.

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.057 lb./hr and 0.25 TPY
Authority for Requirement: Iowa DNR Construction Permit 03-A-516-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

1. The material stored in this tank shall not have a vapor pressure that exceeds 15.0 kPa.
2. The equipment (as defined in 40 CFR §60.481) associated with this emission unit shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §40.489).
3. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.
4. The facility (plant number 70-01-004) shall conduct a VOC stack test (40 CFR 60, Appendix A, Method 25A or other approved method) on the yeast tubs (EU 1096.0, EP 530.0) prior to their removal, but no later than six (6) months after the issuance of DNR Construction Permit 03-A-516-S1 to demonstrate the netting credit used for this project (project number 02-025). Note: DNR Construction Permit 03-A-516-S1 was issued on July 15, 2003.
5. The facility (plant number 70-01-004) shall remove the cyclohexane dehydration system (EU 1001.0, EP 301.0) within six (6) months of the initial startup of the new prefermenters.
6. The facility (plant number 70-01-004) shall remove the batch yeast tubs (EU 1096.0, EP 530.0) within six (6) months of the initial startup of the new prefermenters.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. A Material Safety Data Sheet (MSDS) for any material stored in the tank.
2. As required by Subpart Kb of NSPS, readily accessible records showing the dimensions of the storage vessel and the capacity of the tank shall be kept.
3. The vapor pressure of any material stored in the tank.
4. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR §60.486 and 40 CFR §60487.
5. During the first twelve (12) months of operation, determine the cumulative throughput of material for each month of operation.
6. After the first twelve (12) months of operation, determine the annual throughput of material on a rolling-12-month basis for each month of operation.
7. For the first twelve (12) months of operation, determine the total amount of corn grind for the facility (plant number 70-01-004) for each month of operation.
8. After the first twelve (12) months of operation, determine the cumulative amount of corn grind for the facility (plant number 70-01-004) on a rolling 12-month basis for each month of operation.
9. The facility (plant number 70-01-004) shall notify Field Office 6 of the following dates:
    - When the stack testing on the yeast tubs (EU 1096.0, EP 530.0) was conducted.
    - When the cyclohexane dehydration system (EU 1001.0, EP 301.0) was removed from service.
    - When the yeast tubs (EU 1096.0, EP 530.0) were removed from service.

Authority for Requirement: Iowa DNR Construction Permit 03-A-516-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 18
Stack Diameter (inches): 3
Stack Exhaust Flow Rate (scfm): 5
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 03-A-516-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may

vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 436.0

Associated Equipment

Associated Emission Unit ID Numbers: 1041.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1041.0
Emission Unit Description: "A" Tank Farm Mole Sieve No. 2 Low Proof Feed Tank No. 11
Raw Material/Fuel: Ethanol
Rated Capacity: 1,300 gal.

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 0.057 lb./hr and 0.25 TPY
Authority for Requirement: Iowa DNR Construction Permit 03-A-517-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

1. The material stored in this tank shall not have a vapor pressure that exceeds 15.0 kPa.
2. The equipment (as defined in 40 CFR §60.481) associated with this emission unit shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §40.489).
3. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.
4. The facility (plant number 70-01-004) shall conduct a VOC stack test (40 CFR 60, Appendix A, Method 25A or other approved method) on the yeast tubs (EU 1096.0, EP 530.0) prior to their removal, but no later than six (6) months after the issuance of DNR Construction Permit 03-A-517-S1 to demonstrate the netting credit used for this project (project number 02-025). Note: DNR Construction Permit 03-A-517-S1 was issued on July 15, 2003.
5. The facility (plant number 70-01-004) shall remove the cyclohexane dehydration system (EU 1001.0, EP 301.0) within six (6) months of the initial startup of the new prefermenters.
6. The facility (plant number 70-01-004) shall remove the batch yeast tubs (EU 1096.0, EP 530.0) within six (6) months of the initial startup of the new prefermenters.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. A Material Safety Data Sheet (MSDS) for any material stored in the tank.
2. As required by Subpart Kb of NSPS, readily accessible records showing the dimensions of the storage vessel and the capacity of the tank shall be kept.
3. The vapor pressure of any material stored in the tank.
4. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR §60.486 and 40 CFR §60487.
5. During the first twelve (12) months of operation, determine the cumulative throughput of material for each month of operation.
6. After the first twelve (12) months of operation, determine the annual throughput of material on a rolling-12-month basis for each month of operation.
7. For the first twelve (12) months of operation, determine the total amount of corn grind for the facility (plant number 70-01-004) for each month of operation.
8. After the first twelve (12) months of operation, determine the cumulative amount of corn grind for the facility (plant number 70-01-004) on a rolling 12-month basis for each month of operation.
9. The facility (plant number 70-01-004) shall notify Field Office 6 of the following dates:
    - When the stack testing on the yeast tubs (EU 1096.0, EP 530.0) was conducted.
    - When the cyclohexane dehydration system (EU 1001.0, EP 301.0) was removed from service.
    - When the yeast tubs (EU 1096.0, EP 530.0) were removed from service.

Authority for Requirement: Iowa DNR Construction Permit 03-A-517-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 18
Stack Diameter (inches): 3
Stack Exhaust Flow Rate (scfm): 5
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 03-A-517-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may

vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 471.0

Associated Equipment

Associated Emission Unit ID Numbers: 2437.0
Emissions Control Equipment ID Number: 2437-1
Emissions Control Equipment Description: Bin Vent Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 2437.0
Emission Unit Description: Modified Starch Storage Silo
Raw Material/Fuel: Modified Corn Starch
Rated Capacity: 18 TPH

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): No Visible Emissions(1)
Authority for Requirement: 567 IAC 23.3(2)"d"

(1) If visible emissions are observed other than startup, shutdown, or malfunction a stack test may be required to demonstrate compliance with the particulate standard.

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.29 lb./hr and 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 03-A-079
567 IAC 23.4(7)

Pollutant: PM_{10}
Emission Limit(s): 3.29 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 03-A-079

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 111
Stack Diameter (inches): 16 x 14
Stack Exhaust Flow Rate (scfm): 4,000
Stack Temperature (^{o}F): 80
Discharge Style: Horizontal
Authority for Requirement: Iowa DNR Construction Permit 03-A-079

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Opacity shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Maintain a written record of the observation and any action resulting from the observation for a minimum of five years.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 472.0

Associated Equipment

Associated Emission Unit ID Numbers: 1068.0
Emissions Control Equipment ID Number: CE 1068-1
Emissions Control Equipment Description: Packed Bed Scrubber

Applicable Requirements

Emission Unit vented through this Emission Point: 1068.0
Emission Unit Description: Alcohol Prefermenters (2)
Raw Material/Fuel: Corn Mash
Rated Capacity: 22,000 gal./hr (each)

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 8.5 lb./hr and 37.2 TPY
Authority for Requirement: Iowa DNR Construction Permit 03-A-342-S1

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

1. The equipment (as defined in 40 CFR §60.481) associated with this emission unit shall meet the standards specified in NSPS Subpart VV (40 CFR §60.480 – 40 CFR §40.489).
2. The total grind for the facility (plant number 70-01-004) is limited to 62.050 million bushels of corn per twelve (12) month rolling period.
3. The facility (plant number 70-01-004) shall conduct a VOC stack test (40 CFR 60, Appendix A, Method 25A or other approved method) on the yeast tubs (EU 1096.0, EP 530.0) prior to their removal, but no later than six (6) months after the issuance of DNR Construction Permit 03-A-342-S1 to demonstrate the netting credit used for this project (project number 02-025). Note: DNR Construction Permit 03-A-342-S1 was issued on July 15, 2003.
4. The facility (plant number 70-01-004) shall remove the cyclohexane dehydration system (EU 1001.0, EP 301.0) within six (6) months of the initial startup of the new prefermenters.
5. The facility (plant number 70-01-004) shall remove the batch yeast tubs (EU 1096.0, EP 530.0) within six (6) months of the initial startup of the new prefermenters.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. Reporting and recordkeeping for NSPS Subpart VV shall be done per 40 CFR 60.486 and 40 CFR 60.487.
2. For the first twelve (12) months of operation, determine the total amount of corn grind for the facility (plant number 70-01-004) for each month of operation.
3. After the first twelve (12) months of operation, determine the cumulative amount of corn grind for the facility (plant number 70-01-004) on a rolling 12-month basis for each month of operation.
4. The facility (plant number 70-01-004) shall notify Field Office 6 of the following dates:
   - When the stack testing on the yeast tubs (EU 1096.0, EP 530.0) was conducted.
   - When the cyclohexane dehydration system (EU 1001.0, EP 301.0) was removed from service.
   - When the yeast tubs (EU 1096.0, EP 530.0) were removed from service.

Authority for Requirement: Iowa DNR Construction Permit 03-A-342

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 61.5
Stack Diameter (inches): 24
Stack Exhaust Flow Rate (scfm): 4,800
Stack Temperature (^{o}F): 75
Discharge Style: Unbstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 03-A-342-S1

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 475.0

Associated Equipment

Associated Emission Unit ID Numbers: 1066.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1066.0
Emission Unit Description: Demethylization Feed Tank
Raw Material/Fuel: Ethanol
Rated Capacity: 4,320 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-792

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 35
Stack Diameter (inches): 6
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 75
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-792

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Beer Well Tanks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Beer Well Tanks

---

Applicable Requirements

Table: Beer Well Tanks

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (gal./hr)
480.0	1072.0	Beer Well Tank No. 1	Fermented Corn Mash	25,000
481.0	1073.0	Beer Well Tank No. 2	Fermented Corn Mash	25,000
482.0	1074.0	Beer Well Tank No. 3	Fermented Corn Mash	25,000

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Alcohol Loadout

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Alcohol Loadout

---

Applicable Requirements

Table: Alcohol Loadout

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (gal./hr)
483.0	1075.0	Alcohol Tank Truck Loadout	Alcohol	15,000
520.0	1094.1	Alcohol Track 4A Rail Loadout Spout No. 1	Alcohol	28,000
521.0	1094.2	Alcohol Track 4A Rail Loadout Spout No. 2	Alcohol	28,000
522.0	1094.3	Alcohol Track 4A Rail Loadout Spout No. 3	Alcohol	28,000
523.0	1094.4	Alcohol Track 4A Rail Loadout Spout No. 4	Alcohol	28,000
524.0	1094.5	Alcohol Track 4A Rail Loadout Spout No. 5	Alcohol	28,000
525.0	1094.6	Alcohol Track 4A Rail Loadout Spout No. 6	Alcohol	28,000
526.0	1094.7	Alcohol Track 4A Rail Loadout Spout No. 7	Alcohol	28,000
533.0	1094.8	Alcohol Track 4A Rail Loadout Spout No. 8	Alcohol	28,000
534.0	1094.9	Alcohol Track 4A Rail Loadout Spout No. 9	Alcohol	28,000
535.0	1094.10	Alcohol Track 4A Rail Loadout Spout No. 10	Alcohol	28,000
527.0	1095.1	Alcohol Beverage Truck Loadout Spout (East)	Alcohol	28,000
528.0	1095.2	Alcohol Anhydrous 200 Truck Loadout Spout	Alcohol	28,000
529.0	1095.3	Alcohol 190 Proof (Heads) Truck Loadout Spout	Alcohol	28,000

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 484.0

Associated Equipment

Associated Emission Unit ID Numbers: 1076.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1076.0
Emission Unit Description: Demethylization System Vent Condenser No.1
Raw Material/Fuel: Ethanol
Rated Capacity: 80,000 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-793

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 25
Stack Diameter (inches): 12 x 4
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-793

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 485.0

Associated Equipment

Associated Emission Unit ID Numbers: 1077.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1077.0
Emission Unit Description: Demethylization Surge Tank No. 1
Raw Material/Fuel: Ethanol
Rated Capacity: 4,300 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-794

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 14
Stack Diameter (inches): 12 x 4
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 80
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-794

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 486.0

Associated Equipment

Associated Emission Unit ID Numbers: 1078.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1078.0
Emission Unit Description: Anhydrous Product Vent Condenser No. 2
Raw Material/Fuel: Ethanol
Rated Capacity: 27,000 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-795

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 29
Stack Diameter (inches): 2
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 75
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 02-A-795

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 487.0

Associated Equipment

Associated Emission Unit ID Numbers: 1079.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1079.0
Emission Unit Description: Anhydrous Vacuum Receiver Vent No. 2
Raw Material/Fuel: Ethanol
Rated Capacity: 4,200 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-796

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 29
Stack Diameter (inches): 2
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 75
Discharge Style: Downward
Authority for Requirement: Iowa DNR Construction Permit 02-A-796

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may

vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 488.0

Associated Equipment

Associated Emission Unit ID Numbers: 1067.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1067.0
Emission Unit Description: Anhydrous Alcohol Tank No. 7
Raw Material/Fuel: Ethanol
Rated Capacity: 3,700 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

2. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-797

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 26
Stack Diameter (inches): 2 vents @ 16 x 4
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-797

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may

vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 489.0

Associated Equipment

Associated Emission Unit ID Numbers: 1080.0

Applicable Requirements

Emission Unit vented through this Emission Point: 1080.0
Emission Unit Description: Anhydrous Reject Tank No. 2
Raw Material/Fuel: Ethanol
Rated Capacity: 3,700 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput: The material stored in this tank shall not have a vapor pressure that exceeds 5.2 kPa.

Reporting & Record keeping: All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

1.As required by Subpart Kb of NSPS (See 40 §CFR 60.116b), the following records shall be maintained:

- Readily accessible records showing the dimensions of the storage vessel and the capacity of the tank.
- The Volatile Organic Liquid (VOL) stored.
- The period of storage for the VOL.
- The maximum true vapor pressure of the VOL during the respective storage period.

Authority for Requirement: Iowa DNR Construction Permit 02-A-798
40 CFR 60.116b
567 IAC 23.1(2)"ddd"

2. A Material Safety Data Sheet (MSDS) for any material stored in the tank.

3. For the first twelve (12) months of operation, determine the total throughput (in gallons/month) for each month of operation.

4. After the first twelve (12) months of operation, determine the annual throughput (in gallons/yr) on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 02-A-798

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 26
Stack Diameter (inches): 2 vents @ 16 x 4
Stack Exhaust Flow Rate (acfm): Displacement
Stack Temperature (^{o}F): 70
Discharge Style: Obstructed vertical
Authority for Requirement: Iowa DNR Construction Permit 02-A-798

The temperature and flowrate is intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that temperature and flowrate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: See Table: Distillation Column Vents

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Distillation Column Vents

---

Applicable Requirements

Table: Distillation Column Vents

Emission Point Number	Associated Emission Unit Number	Emission Unit Description	Raw Material/ Fuel	Rated Capacity (gal./hr)
501.0	1082.0	No. 1 Beer Column - Vent	Alcohol	25,000
505.0		No. 1 Beer Column – Degasifier Vent	Alcohol	
502.0	1083.0	No. 2 Beer Column - Vent	Alcohol	25,000
506.0		No. 2 Beer Column – Degasifier Vent	Alcohol	
509.0		No. 2 Beer Column Reflux Vent	Alcohol	
503.0	1084.0	No. 3 Beer Column - Vent	Alcohol	30,000
507.0		No. 3 Beer Column – Degasifier Vent	Alcohol	
504.0	1085.0	No. 4 Beer Column - Vent	Alcohol	45,000
508.0		No. 4 Beer Column – Degasifier Vent	Alcohol	
510.0	1086.0	No. 1 Alcohol Column -Reflux Tank Vent	Alcohol	5,000 proof gal.
511.0		No. 1 Alcohol Column -Reflux Vent	Alcohol	
512.0		No. 1 Alcohol Column -Vent	Alcohol	
513.0	1087.0	No. 2 Alcohol Column -Vent	Alcohol	2,500 proof gal.
514.0	1088.0	No. 3 Alcohol Column -Vent	Alcohol	2,500 proof gal.
515.0	1089.0	No. 4 Alcohol Column -Vent	Alcohol	5,000 proof gal.
516.0	1090.0	No. 2 Extractive Distillation Column -Vents	Alcohol	3,000 proof gal.
517.0	1091.0	No. 3 Extractive Distillation Column -Vents	Alcohol	3,000 proof gal.
518.0	1092.0	No. 4 Extractive Distillation Column -Vents	Alcohol	3,000 proof gal.
519.0	1093.0	Stripper Column -Vent	Alcohol	17,000 proof gal.

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite No. 1, Urbandale, Iowa 50322, four or more copies of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period

consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
    a. Form 1.0 "Facility Identification";
    b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
    c. Form 5.0 "Title V annual emissions summary/fee"; and
    d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
    a. Form 1.0 "Facility Identification";
    b. Form 5.0 "Title V annual emissions summary/fee";
    c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges
Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information
The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties
The owner or operator of any air emission source or control equipment shall:
1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring
1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;

b. Compliance test methods specified in 567 Chapter 25; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a

violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
d. The changes are not subject to any requirement under Title IV of the Act.
e. The changes comply with all applicable requirements.
f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,
ii. The date on which the change will occur,
iii. Any change in emission as a result of that change,
iv. The pollutants emitted subject to the emissions trade
v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. Aggregate Insignificant Emissions. The permittee shall not construct, establish or operate any new insignificant activities or modify any existing insignificant activities in such a way that the emissions from these activities no longer meet the criteria of aggregate insignificant emissions. If the aggregate insignificant emissions are expected to be exceeded, the permittee shall submit the appropriate permit modification and receive approval prior to making any change. *567 IAC 22.103(2)*

6. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 <u>except</u> 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements included in this permit as of the date of permit issuance.

This permit shield shall not alter or affect the following:

1. The provisions of section 303 of the Act (emergency orders), including the authority of the administrator under that section;
2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Act;
4. The ability of the department or the administrator to obtain information from the facility pursuant to section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite No. 1
Urbandale, IA 50322
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite No. 1
Urbandale, IA 50322
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
P.O. Box 1443
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6
1004 W. Madison
Washington, IA 52353
(319) 653-2135

Polk County Public Health Dept.
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.
Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

Appendix

IDNR Air Quality Policy 3-b-08 (Opacity

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

POLICY/PROCEDURE STATEMENT

TOPIC: Opacity Limits

Policy Procedure Number: 3-b-08 **Replaces Number: None**

Date: **Effective Date:** November 12, 1998

Preparer: David Phelps **Reviewer:**

Approval: **Bureau Chief: Peter Hamlin** **Date:** 11/12/98

Division Administrator: Allan Stokes **Date:** 11/12/98

Applicable Code of Iowa or Iowa Administrative Code Rule: 23.3(2)d

"No person shall allow, cause or permit the emission of visible air contaminants into the atmosphere from any equipment, internal combustion engine, premise fire, open fire or stack, equal to or in excess of 40 percent opacity or that level specified in a construction permit, except as provided below and in 567-Chapter 24."

REASON OR BACKGROUND

The default opacity limit allowed by regulation is 40%. This limit was established with the original regulations in 1970. It is generally accepted that opacity greater than 40% was evidence of a mass emission standard exceedence. More recently, there have been requests from facilities for limits much lower than that allowed by the regulations, in some cases less than 0.01 gr/scf to which a 40% opacity limit does not correspond. Since opacity is used as an indicator of the particulate emission rate, listing an indicated potential problem opacity that is more in line with the mass emission rate is useful. In order to have the authority to set limits lower than 40%, subrule 23.3(2)d was changed. This change allows the department the ability to set opacity limits at a level that more closely corresponds to what would be observed by the source when operating in compliance with its mass emission rate.

Except in the case where a specific opacity limit is established by rule, it has been the general policy of the Department not to take action on opacity limits directly. Rather, if it is felt that a violation of the mass emission rate exists that is not attributable to some abnormal event, a stack test would be required to verify compliance. However, the Department reserves the right to use the results of formal opacity readings as evidence of an exceedence.

DETAILS

It shall be the policy of the Department to list the default opacity as a permit condition and in addition an indicator opacity may be listed.

For ease of proving continual compliance a source may request a 'no visible emissions' opacity limit which allows proof of compliance without having a certified opacity reading taken. In this case any visible emissions would be an exceedence.

The IDNR permit writer may list an opacity that will be a indicator of possible mass emission rate exceedence. If the permitee wishes, the recommended indicator opacity may be changed by demonstrating compliance with the mass emission rate during a stack test while emitting the new desired indicator opacity. If the tested mass emission rate is less than the permitted emission rate, then the desired indicator opacity may be set at a proportionally higher level than observed during the stack test.

If an opacity measurement, taken in accordance with an approved reference method for opacity, (generally USEPA Method 9 or 22) exceeds the indicator opacity then the facility will promptly investigate the source and make corrections. However, if after corrections are made the opacity continues to exceed the indicator opacity the Department may require additional proof to demonstrate compliance with the mass emissions limits.

Recommended indicator opacities shall be:

Grain Loading gr./scf	Recommended Indicator Opacity
<0.01 gr./scf	non specified in permit *
0.01 to 0.06 gr./scf	10% Opacity
0.061 to 0.08 gr./scf	20% Opacity
0.081 to 0.1 gr./scf	25% Opacity

* A line is added to the permit that states: "If visible emissions are observed other that start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard."

If a source is a batch process the indicator opacity shall be based on the table above, but the opacity averaging period, for comparison to the indicator opacity, shall be the entire batch cycle. For purposes of comparison to the indicator opacity readings shall be taken during the entire cycle and averaged.

Sources are also given the opportunity to set source specific limits to be coordinated with the initial compliance test. These may then be incorporated into the permit.

In all cases an exceedence of the indicator opacity will require the permitee to file an "indicator opacity exceedence report" to the IDNR regional office. The reporting requirements shall be:

Oral report of excess indicator opacity. An incident of excess indicator opacity (other than an incident of excess indicator opacity during a period of startup, shutdown, or cleaning) shall be reported to the appropriate regional office of the department within eight hours of, or at the start of the first working day following the onset of the of the incident. The reporting exemption for an incident of excess indicator opacity during startup and shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in subrule 25.1(6).

An oral report of excess indicator opacity is not required for a source with operational continuous monitoring equipment (as specified in subrule 25.1(1) if the incident of excess indicator opacity continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity.

The oral report may be made in person or by telephone and shall include as a minimum the following:

a) The identity of the equipment or source operation form which the excess indicator opacity originated and the associated stack or emission point.
b) The estimated quantity of the excess indicator opacity.
c) The time and expected duration of the excess indicator opacity.
d) The cause of the excess indicator opacity.
e) The steps being taken to remedy the excess indicator opacity.
f) The steps being taken to limit the excess indicator opacity in the interim period.

Written report of excess indicator opacity. A written report of an incident of excess indicator opacity shall be submitted as a follow-up to all required oral reports to the department within seven (7) days of the onset of the upset condition, and shall include as a minimum the following:

a) The identity of the equipment or source operation point from which the excess emission originate and the associated stack or emission point.
b) The estimated quantity of the excess indicator opacity.
c) The time and duration of the excess indicator opacity.
d) The cause of the excess indicator opacity.
e) The steps that were taken to remedy and to prevent the recurrence of the incident of excess indicator opacity.
f) The steps that were taken to limit the excess indicator opacity.
g) If the owner claims that the excess indicator opacity was due to malfunction, documentation to support this claim.

Exceptions to this policy:

1) In the case where a facility has an opacity limit established in an existing permit, no change will be made to that permit limit unless the permit is being modified for other purposes.
2) If the facility has a continuous opacity monitor, this policy shall not apply.
3) This policy shall not apply to opacity limits established in Prevention of Significant Deterioration (PSD) permits or permits that were established for maintenance plans for nonattainment areas.
4) This policy shall not apply where an opacity limit is established as an indication of hazardous air pollutants.

5) This policy shall not apply where an opacity limit is established by a rule, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAPS), etc.